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



Academic Program and Course Description Guide

2024

Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

Academic Program Description: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

<u>Course Description</u>: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

<u>Program Vision</u>: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

<u>Program Mission</u>: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

<u>**Curriculum Structure:**</u> All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must determine the learning outcomes of each course in a way that achieves the objectives of the program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extracurricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: .Tikrit Faculty/Institute: .College of Sciences. Scientific Department: Applied of Geology. Academic or Professional Program Name: Geology of Iraq Final Certificate Name: Geology Academic System: Second course Description Preparation Date: 5/10/2024 File Completion Date: 14/11/2024

Signature:

Head of Department Name: Sawsin H. Fesal Signature:

Scientific Associate Name:Firas F. Rija

The file Date:

checked by:

Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department:

is

Date: Signature:

Approval of the Dean

1. Program Vision

The College of Science seeks to be one of the leading higher education institutions at Tikrit University in the field of modern education and scientific research through its scientific, research and administrative activities. It also works to provide an integrated path for its students and professors to make them active and creative in serving the community in the fields of teaching and learning living languages.

2. Program Mission

Working to prepare and graduate pioneering scientific and leadership competencies in the sciences and in developing the knowledge base in the field of scientific research to serve the local, regional and international community, in addition to training and refining the minds of students scientifically and cognitively.

3. **Program Objectives**

The curriculum is a basic applied curriculum that enables the student to learn comprehensive information about the geology of Iraq in all its details and apply it in the field through field trips. It is complementary to the study of sedimentology and stratigraphy that the student studies in other classes.

4. Program Accreditation

No

5. Other external influences

No

6. Program Structure						
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*		

Institution Requirements	90	90	Major decided
College Requirements	Yes		
Department Requirements	Yes		
Summer Training	Found		
Other			

* This can include notes whether the course is basic or optional.

7. Program Description					
Year/Level	Course Code	Course Name	(Credit Hours	
2024-2025/second		Field geology	theoretical	Practical	

8. Expected learning	8. Expected learning outcomes of the program					
Knowledge						
Learning Outcomes 1	Cognitive Objectives					
	A1- explaining an overview of synthetic geology.					
	A2- The importance of this science in geology.					
	A3- Identifying the geological structures in the field.					
	A4- Identifying geological formations and their distributions in the field.					
Skills						
Learning Outcomes 2	B1-After receiving this course, the student will be able to determine the					
	types of geological structures in the field and how to collect data.					
	B2 - The possibility of understanding the distribution of rock detectors and					
	their relationship to the presence of folds and cracks.					
	B3 – The possibility of determining the ancient stress causing the presence					
Learning Outcomes 3	Indicative content includes the following					
Learning Outcomes 5	1. Presenting the course in a clear and simplified manner, with the help of					
	1- Presenting the course in a clear and simplified manner, with the help of					
	graphs pictures, videos and illustrations, and presenting them through the					
	Power Point presentation technology.					
	2- Classroom and laboratory exercises and activities					
	3- Weekly and quarterly assignments and reports.					
Ethics						
Learning Outcomes 4	Learn about analysis of folds classification and faults.					
Learning Outcomes 5	Learning Outcomes Statement 5					

9. Teaching and Learning Strategies

Lecture delivery method: 2- Student groups (Team Project).

3- Standard method.

4- Practical lectures

10. Evaluation methods

Weekly, monthly, daily and end of semester exams.

11.Faculty							
Faculty Members							
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff		
	General	Special			Staff	Lecturer	
Asst. prof. Dr.	Geology	Structural geology			angel		

Professional Development

Mentoring new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

13. The most important sources of information about the program

Field geology, Abed M. F, 2017 in Arabic

14.Program Development Plan

Including topics that are in line with modernity and the requirements of scientific and practical life, and what scientists have reached, on an ongoing basis.

	Program Skills Outline														
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or Knowledge optional				Skill	5			Ethics				
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C 3	C4
2024- 2025/second	Geo12017	Field geology	Basic												
															ļ

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

1.	Course	Name:

Field geology

2. Course Code:

Geo12017

3. Semester / Year:

Second /First course

4. Description Preparation Date:

1/9/2024

5. Available Attendance Forms:

Attendance only

6. Number of Credit Hours (Total) / Number of Units (Total)

60 semester hours. 4 hours weekly

7. Course administrator's name (mention all, if more than one name) Name: Asst. Prof. Dr. Ayyed H. Ward Email: aiedwarid@tu.edu.ig

8. Course Objectives

Course ObjectivesExplaining an overview of structural geology as an important
geology and identifying the geological structures in the field

1

9. Teaching	g and Learning Strategies
Strategy	11- Lecture deliv

11- Lecture delivery method.
2- Student groups (Team Project).

- 3- Standard method.
- 4- Practical lectures.

10. Course Structure

Evaluation method	Learning method	Unit or subject name	Week
2	2	Field geology and its aims.	First
2	2	Requirements of the field and safety.	Second
2	2	How to measure the geological observations.	Third
2	2	Determining the attitudes of the planes by the touching method.	Fourth
2	2	Determining the position of the planes by the bearing method.	Fifth
2	2	Determining the position of the planes by the compass.	Sixth

	2	2	Positioning and altim	eter systems.	Seventh	
	2	2	Mid-term Exam 1		Eighth	
	2	2	Methods of the field	investigation.	Ninth	
	2	2	Tabling of data.		Tenth	
	2	2	The field notes.		Eleventh	
	2	2	Geological section di	cawing.	Twelfth	
	2	2	Stratigraphic section	drawing.	Thirteenth	
	2	2	Structural section dra	wing.	Fourteenth	
	2	2	Mid-term Exam 2		Fifteenth	
	11.Course E	valuation	1			
	Distribution as	follows: 3	35 theoretical marks	for monthly and daily e	xams, 15% practical mar	ks
	for reports and	an exam,	total 50%. Final exan	n mark 50%		
	12.Learning	and Tead	ching Resources			
	Required textbo	oks (curric	cular books, if any)	Field geology, Abed M. F, 2017 in Arabic		
	Main references	(sources)				
	Recommended	books and	references (scientific			
journals, reports)						
	Electronic Refer	rences, We	bsites			

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2024

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Signature:

Head of Department Name: Sawsin H. Fesal Signature:

Scientific Associate Name:Firas F. Rija

The file Date:

checked by:

Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department:

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Date: Signature:

Approval of the Dean

15.Program Vision

The College of Science seeks to be one of the leading higher education institutions at Tikrit University in the field of modern education and scientific research through its scientific, research and administrative activities. It also works to provide an integrated path for its students and professors to make them active and creative in serving the community in the fields of teaching and learning living languages.

16. Program Mission

Working to prepare and graduate pioneering scientific and leadership competencies in the sciences and in developing the knowledge base in the field of scientific research to serve the local, regional and international community, in addition to training and refining the minds of students scientifically and cognitively.

17.**Program Objectives**

The curriculum is a basic applied curriculum that enables the student to learn comprehensive information about the geology of Iraq in all its details and apply it in the field through field trips. It is complementary to the study of sedimentology and stratigraphy that the student studies in other classes.

18. Program Accreditation

No

19. Other external influences

No

20.Program Structure						
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*		

Institution Requirements	90	90	Major decided
College Requirements	Yes		
Department Requirements	Yes		
Summer Training	Found		
Other			

* This can include notes whether the course is basic or optional.

21. Program Description						
Year/Level	Course Code	Course Name	(Credit Hours		
2024-2025/fourth		Field survey	theoretical	Practical		

22. Expected learning	22. Expected learning outcomes of the program						
Knowledge							
Learning Outcomes 1	Cognitive Objectives						
	A1- explaining an overview of synthetic geology.						
	A2- The importance of this science in geology.						
	A3- Identifying the geological structures in the field.						
	A4- Identifying geological formations and their distributions in the field.						
Skills							
Learning Outcomes 2	B1-After receiving this course, the student will be able to determine the						
	types of geological structures in the field and how to collect data.						
	B2 – The possibility of understanding the distribution of rock detectors and						
	their relationship to the presence of folds and cracks.						
	B3 – The possibility of determining the ancient stress causing the presence						
	of folds and faults for geological distortions.						
Learning Outcomes 3	Indicative content includes the following.						
	1- Presenting the course in a clear and simplified manner, with the help of						
	graphs pictures, videos and illustrations, and presenting them through the						
	Power Point presentation technology.						
	2- Classroom and laboratory exercises and activities						
	3- Weekly and quarterly assignments and reports.						
Ethics							
Learning Outcomes 4	Learn about analysis of folds classification and faults.						
Learning Outcomes 5	Learning Outcomes Statement 5						

23. Teaching and Learning Strategies

Lecture delivery method: 2- Student groups (Team Project).

3- Standard method.

4- Practical lectures

24. Evaluation methods

Weekly, monthly, daily and end of semester exams.

25.Faculty						
Faculty Members						
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Asst. prof. Dr.	Geology	Structural geology			angel	

Professional Development

Mentoring new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

26. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

27. The most important sources of information about the program

Field geology, Abed M. F, 2017 in Arabic

28.Program Development Plan

Including topics that are in line with modernity and the requirements of scientific and practical life, and what scientists have reached, on an ongoing basis.

	Program Skills Outline														
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knov	vledge			Skills	5			Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	С3	C4
2024-	Geo47142	Field survey	Basic												
2025/fourth															

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

13.Course N	ame:
-------------	------

Field survey

14.Course Code:

Geo47142

15.Semester / Year:

Second /First course

16.Description Preparation Date:

1/9/2024

17. Available Attendance Forms:

Attendance only

18.Number of Credit Hours (Total) / Number of Units (Total)

60 semester hours. 4 hours weekly

19.Course administrator's name (mention all, if more than one name)Name: Asst. Prof. Dr. Ayyed H. Ward

Email: aiedwarid@tu.edu.iq

20.Course Objectives Course Objectives

Explaining an overview of structural geology as an important geology and identifying the geological structures in the field

21.Teaching	g and Learning Strategies
Strategy	11- Lecture deliv

11- Lecture delivery method.
Student groups (Team Project).

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- 4- Practical lectures.

22. Course Structure

Evaluation	Learning	Unit or subject name	Week
method	method		
2	2	Field survey and its aims.	First
2	2	Equipment's of the field survey and safety.	Second
2	2	Maps and previous studies	Third
2	2	Summary about suggested field survey area.	Fourth
2	2	Explaining and interpreting the field	Fifth
		outcrops	
2	2	Map orientation and determine of the	Sixth
		location	
2	2	Field survey for the first section.	Seventh
2	2	Mid-term Exam 1	Eighth

	2	2	Field survey for the s	econd section.	Ninth	
	2	2	Field survey for the t	hird section.	Tenth	
	2	2	Field survey for the f	ourth section.	Eleventh	
	2	2	Field survey for the f	ifth section.	Twelfth	
	2	2	Drawing maps of ge	cology, geomorphology	Thirteenth	
			and structures.			
	2	2	Drawing geologica	l, stratigraphic and	Fourteenth	
			structural sections.			
	2	2	Mid-term Exam 2		Fifteenth	
	23.Course E	valuatior	1			
	Distribution as	follows: 3	35 theoretical marks	for monthly and daily e	exams, 15% practical ma	rks
	for reports and	an exam,	total 50%. Final exan	n mark 50%	,	
	24.Learning	and Tead	ching Resources			
	Required textbo	oks (curric	cular books, if any)	Field geology, Abec	d M. F, 2017 in Arabic	
	Main references	(sources)				
	Recommended l	books and	references (scientific			
journals, reports)						
	Electronic Refer	rences, We	bsites			

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



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Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extracurricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: .Tikrit Faculty/Institute: .College of Sciences. Scientific Department: Applied Geology. Academic or Professional Program Name: Industrial Rocks Final Certificate Name: Geology Academic System: First course Description Preparation Date: 5/10/2024 File Completion Date: 14/11/2024

Signature:

Head of Department Name: Sawsan H. Faisal Signature:

Scientific Associate Name: Sawsan H Faisal

Date:

The file Date:

checked by:

Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department:

is

Date: Signature:

Approval of the Dean

29. Program Vision

The College of Science aims to be one of the leading institutions in higher education at Tikrit University through modern teaching, scientific research, and community service, empowering students and faculty to be creative and effective in their fields.

30.Program Mission

To prepare and graduate qualified scientific and leadership competencies in the field of Applied Geology, enrich scientific knowledge, and meet the needs of the local, regional, and international labor market by offering advanced academic content.

31.Program Objectives

- 1. Introduce students to the concept of industrial rocks and minerals.
- 2. Classify different types of industrial rocks based on origin and usage.
- 3. Analyze the physical and chemical properties of industrial materials and link them to practical applications.
- 4. Understand extraction techniques and cost estimation in industrial production.
- 5. Highlight the role of industrial rocks in supporting national industries and the private sector.

32. **Program Accreditation**

No

33. Other external influences

No

34. Program Structure								
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*				
Institution Requirements	90	90		Major decided				
College Requirements	Yes							
Department Requirements	Yes							
Summer Training	Found							
Other								

* This can include notes on whether the course is basic or optional.

35. Program Description							
Year/Level	Course Code	Course Name		Credit Hours			
2023-2024/forth		Industrial Rocks	theoretical				

36. Expected learning	outcomes of the program
Knowledge	
Learning Outcomes 1	 Introduce students to the concept of industrial rocks and minerals. Classify different types of industrial rocks based on origin and usage. Analyze industrial materials' physical and chemical properties and link them to practical applications. Understand extraction techniques and cost estimation in industrial production. Highlight the role of industrial rocks in supporting national industries and the private sector.
Skills	
Learning Outcomes 2	 Evaluate the suitability of rocks for industrial purposes. Estimate the reserves of industrial raw materials. Propose low-cost, environmentally safe production methods.
Learning Outcomes 3	Developing students' ability to share ideas
Ethics	
Learning Outcomes 4	Evaluate the suitability of rocks for industrial purposes.Estimate the reserves of industrial raw materials.

	Propose low-cost, environmentally safe production methods.
Learning Outcomes 5	Learning Outcomes Statement 5

37. Teaching and Learning Strategies

Lecture delivery method:

- 1. Lectures supported by PowerPoint, diagrams, and videos.
- 2. Group assignments and projects.
- 3. Field visits to Cement Plants.

38. Evaluation methods

Weekly, monthly, daily, and end-of-semester exams.

39.Faculty							
Faculty Members							
Academic Rank	Specialization Special Requirements/Skills (if applicable) Number of teaching staff						
	General	Special			Staff	Lecturer	
Professor Dr.	Geology	Industrial Rocks			angel		

Professional Development

Mentoring new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty, such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

40.Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

41. The most important sources of information about the program

- Main Textbook: Elements of Petroleum Geology by Richard C. Selley
- **Recommended References:** *Petroleum Geology: A Concise Study* by R.E. Chapman *Petroleum* by V. Sokolov

42.Program Development Plan

Including topics that align with modernity, the requirements of scientific and practical life, and what scientists have reached on an ongoing basis.

	Program Skills Outline														
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knov	vledge			Skill	5			Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C 3	C4
2023- 2024/Forth	Geo	Petroleum Geology	Basic												
															ļ

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

25.Course	Name:						
Petroleum Ge	ology						
26.Course	Code:						
Geo 425							
27.Semeste	er / Yeai						
Second /First c	ourse						
28.Descrip	28.Description Preparation Date:						
14/11/2024							
29.Availabl	le Attend	lance Forms:					
Attendar	nce only						
30.Number	of Credi	t Hours (Total) / Number of Units (Tota	l)				
60 seme	ester ho	urs. 4 hours weekly					
31. C	ourse a	dministrator's name (mention all, if m	nore than one				
name)							
Name: F	Prof .Dr.	Sawsan H Faisal					
Email: <u>s</u>	awsanalha	azaa@tu.edu.iq					
<u>32.Course (</u>	Objective						
Course Objectives	S	 Establish the fundamental principling Understand the geological processed petroleum generation and accumul Qualify students to analyze reserved 	es of petroleum geology. es responsible for ation. bir and source rock				
		characteristics.	heir geological settings				
		 Relate geological knowledge to Ira 	q's petroleum industry.				
22 T 1	1 -						
33. Teaching	g and Le	arning Strategies					
Strategy	- Le	ecture delivery method.					
	- St	udent groups (Team Project).					
- Standard method.							
24 Carrier Sta	- P1	ractical lectures.					
34. Course Su	ructure		2				
Evaluation							
method	method	care of Subject hume	WEEK				
	2	Introduction to Economic Geology –	First				
	2	Definition and Scope of Industrial Rocks	Coord				
	2	Classification of Industrial Rocks and	Secona				

		Minerals	
	2	Environmental impact of mining and	Third
		extraction	
	2	Properties and uses of igneous industrial	Fourth
		rocks (granite and basalt)	
	2	Properties and uses of metamorphic rocks	Fifth
		(marble and slate)	
	2	Industrial use of gravel and sand	Sixth
	2	Midterm exam and initial report discussion	Seventh
	2	Sandstone and glass sand – properties and	Eighth
		applications	
	2	Limestone and dolomite - industrial and	Ninth
		construction uses	
	2	Gypsum and phosphate – extraction and	Tenth
		usage	
	2	Cement manufacturing – raw materials and	Eleventh
		types	
	2	Manufacturing and evaluation of	Twelfth
		engineering bricks	
	2	Discussion of reports and research projects	Thirteenth
	2	Introduction to underground storage as an	Fourteenth
		industrial application	
	2	Final review and final theoretical exam	Fifteenth
	·		
35.Course	Evaluation	n	
Distribution a	as follows:	35 theoretical marks for monthly and dail	v exams, 15% practical
marks for rep	orts and ar	n exam, total 50%. Final exam mark 50%	,,,, p
36.Learnin	g and Tea	ching Resources	
Required textb	ooks (curri	cular books, if any) nothing	
1		nothing	
Main reference	es (sources)	•	
	(2. Industrial Mit	nerals and Rocks – Kogel
		et al., 2006	C
		3 An Introducti	on to Economic Geology

3. An Introduction to Economic Geology and its Environmental Impact – Evans, 2005

 2005

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

 Electronic References, Websites

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



Academic Program and Course Description Guide

2024

Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

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In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

Academic Program Description: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

<u>Course Description</u>: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

3

<u>Program Vision</u>: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

<u>Program Mission</u>: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

<u>Program Objectives:</u> They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

<u>**Curriculum Structure:**</u> All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must determine the learning outcomes of each course in a way that achieves the objectives of the program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extracurricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: .Tikrit Faculty/Institute: .College of Sciences. Scientific Department: Applied of Geology. Academic or Professional Program Name: Underground Storage Final Certificate Name: Geology Academic System: 4th year\ Second course Description Preparation Date: 5/10/2024 File Completion Date: 14/11/2024

Signature:

Head of Department Name: Sawsan H Faisal Signature:

Scientific Associate Name: Sawsan H Faisal

Date:

The file Date:

checked by:

Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department:

is

Date: Signature:

Approval of the Dean

43. Program Vision

The College of Science seeks to be one of the leading higher education institutions at Tikrit University in the field of modern education and scientific research through its scientific, research and administrative activities. It also works to provide an integrated path for its students and professors to make them active and creative in serving the community in the fields of teaching and learning living languages.

44. Program Mission

Working to prepare and graduate pioneering scientific and leadership competencies in the sciences and in developing the knowledge base in the field of scientific research to serve the local, regional and international community, in addition to training and refining the minds of students scientifically and cognitively.

45.Program Objectives

- 1. Introduce students to the fundamental concept and strategic importance of underground storage.
- 2. Clarify the geological and physical requirements for effective storage systems.
- 3. Explore different types of underground storage and their applications in Iraq and worldwide.
- 4. Analyze the engineering and environmental challenges associated with subsurface storage.
- 5. Provide practical examples of storing various materials (water, gas, oil, and waste).

46. Program Accreditation

No

47. Other external influences

No

48.Program Structure								
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*				
Institution Requirements	90	90		Major decided				
College Requirements	Yes							
Department Requirements	Yes							
Summer Training	Found							
Other								

* This can include notes whether the course is basic or optional.

49. Program Description							
Year/Level	Course Code	Course Name		Credit Hours			
2023-2024/4 th \2 nd		Underground	theoretical				
coarse		Storage					

50. Expected learning outcomes of the program							
Knowledge							
Learning Outcomes 1	 Understand the types and purposes of underground storage. Identify suitable geological formations for storage applications. Distinguish between different storage techniques and their geographical applicability. 						
Skills							
Learning Outcomes 2	 Analyze geological characteristics for site suitability assessment. Diagnose and propose solutions for engineering and leakage issues. Develop reports based on geological storage evaluations. 						
Learning Outcomes 3	Developing students' ability to share ideas						
Ethics							
Learning Outcomes 4	 Promote sustainable resource management through safe storage practices. Encourage environmental responsibility in subsurface 						

	projects.Support optimal utilization of subsurface spaces.
Learning Outcomes 5	Learning Outcomes Statement 5

51. Teaching and Learning Strategies

Lecture delivery method:

2- Student groups (Team Project).

3- Standard method.

52. Evaluation methods

Weekly, monthly, daily and end of semester exams.

53.Faculty									
Faculty Members									
Academic Rank	Specializa	ation	Special Requirement (if applicable	s/Skills)	Number of the teaching staff				
	General	Special			Staff	Lecturer			
Professor Dr.	Geology	Sedimentary Rocks			angel				

Professional Development

Mentoring new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

54. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

55. The most important sources of information about the program

- 1. Underground Storage of Fluids B. Bérest & P. Bergues
- 2. Geological Storage Systems (CO₂, Waste) IPCC Technical Reports

• Supplementary Materials:

•

- 1. Research articles from the petroleum and water ministries
- 2. Case studies from international storage projects

56.Program Development Plan

Including topics that align with modernity, the requirements of scientific and practical life, and what scientists have reached on an ongoing basis.

Program Skills Outline															
				Required program Learning outcomes											
Year/Level Course Code	Course Code	Course Course Name Code	Basic or optional	Knowledge			Skills			Ethics					
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C 3	C4
2023- 2024/4th	Geo	Underground Storage	Basic												

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.
Course Description Form

37.Course	Name:						
Micropaleonto	ology						
38.Course	Code:						
Geo	Geo						
39.Semeste	39.Semester / Year:						
Second /4 th yea	ır						
40.Descrip	tion Pre	paration Date:					
14/11/2024							
41.Availabl	le Attend	ance Forms:					
Attendar	nce only						
42.Number	of Cred	t Hours (Total) / Number of Units (Tota	1)				
30 seme	ester ho	urs. 2 hours weekly					
43. C name)	ourse a	dministrator's name (mention all, if m	nore than one				
Name: F	Prof.Dr.	Sawsan H Faisal					
Email: sa	awsanalhaza	a@tu.edu.iq					
44.Course (Objective	es					
Course Objectives1. Introduce students to the fundamental concept and strateg importance of underground storage. 2. Clarify the geological and physical requirements for effective storage systems. 							
45.Teaching	g and Le	arning Strategies					
Strategy		1- Lecture delivery method.					
		2- Student groups (Team Project).					
		- Standard method.					
46. Course Str	ructure						
			.4				
Evaluation method	Learning method	Unit or subject name	Week				

2	Types of un	nderground storage: water, gas,	First
	oil, hazardo	ous waste	
2	Physical cl	haracteristics and suitable rock	Second
	types		
2	Storage 1	n carbonate and sandstone	Third
2	formations		E a conth
2	Storage in	salt formations and natural	Fourth
2	Critorio and	I requirements for site selection	Eifth
2		requirements for site selection	Ciuth
2	Midterm ex	am	Sixth
2	Leakage pro	oblems and material loss	Seventh
2	Environme	ntal impacts of underground	Eighth
	storage		
2	Modern tec	chniques for controlling storage	Ninth
	risks		
2	Emergency	and drinking water storage	lenth
2	Undergrour	nd storage of gas and oil	Eleventh
2	Subsurface	disposal of radioactive and	Twelfth
	chemical w	aste	
2	Global and	l local case studies: successful	Thirteenth
	and failed e	examples	
2	Final review	w and final exam	Fourteenth
2	Types of u	nderground storage: water, gas,	Fifteenth
	oil, hazardo	bus waste	
47 Course Eval	uation		
Distribution as fo	llows: 25 theoreti	cal marks for monthly and dail	w ovame 15% practical
marks for reports	and an examitatal	50% Final evan mark 50%	ly exams, 15% practical
18 Loorning on	d Teaching Paso		
40.Leaning and	(ourrigular books i	f any)	
Required textbooks	(curricular books, 1	nothing	
Main references (so	ources)	1	
Recommended boo	ks and references (s	cientific Resear	ch articles from
journals, reports)		petrole	eum and water ministries
		• Case s	tudies from international
		storage	e projects
			1 5
Electronic Deference	was Wabaitaa		
Electronic Kelefellt			

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



Academic Program and Course Description Guide

2024

Introduction:

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Academic Program Description Form

University Name: .Tikrit Faculty/Institute: .College of Sciences. Scientific Department: Applied of Geology. Academic or Professional Program Name: Petroleum Geology Final Certificate Name: Geology Academic System: First course Description Preparation Date: 5/10/2024 File Completion Date: 14/11/2024

Signature:

Head of Department Name: Sawsan H. Faisal Signature:

Scientific Associate Name: Sawsan H Faisal

The file Date:

checked by:

Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department:

is

Date: Signature:

Approval of the Dean

57.Program Vision

The College of Science aims to be one of the leading institutions in higher education at Tikrit University through modern teaching, scientific research, and community service, empowering students and faculty to be creative and effective in their fields.

58. Program Mission

To prepare and graduate qualified scientific and leadership competencies in the field of Applied Geology, enrich scientific knowledge, and meet the needs of the local, regional, and international labor market by offering advanced academic content.

59. Program Objectives

- Establish the fundamental principles of petroleum geology.
- Understand the geological processes responsible for petroleum generation and accumulation.
- Qualify students to analyze reservoir and source rock characteristics.
- Identify the types of oil traps and their geological settings.
- Relate geological knowledge to Iraq's petroleum industry.

60. Program Accreditation

No

61. Other external influences

No

62.Program Structure								
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*				
Institution Requirements	90	90		Major decided				
College Requirements	Yes							
Department Requirements	Yes							
Summer Training	Found							
Other								

* This can include notes on whether the course is basic or optional.

63. Program Description								
Year/Level Course Code Course Name Credit Hours								
2023-2024/forth		Petroleum Geology	theoretical	Practical				

64. Expected learning outcomes of the program							
Knowledge							
Learning Outcomes 1	 Understand petroleum origin, generation, maturation, migration, and trapping. Identify geological characteristics of the reservoir and source rocks. Evaluate petroleum traps and oil field structures. Recognize the significance of oil fields in Iraq's economy. 						
Skills							
Learning Outcomes 2	 1 Analyze subsurface geological maps and structures. 2. Evaluate reservoir sedimentary environments. 3. Calculate oil reserves using standard methods. 4. Distinguish migration types and evidence of hydrocarbons. 						
Learning Outcomes 3	Developing students' ability to share ideas						
Ethics							
Learning Outcomes 4	 Develop critical thinking and analytical reasoning. Promote collaboration and team-based problem solving. Emphasize scientific integrity and environmental awareness. 						

6

Learning Outcomes Statement 5

65. **Teaching and Learning Strategies**

Lecture delivery method:

- 4. Lectures supported by PowerPoint, diagrams, and videos.
- 5. Group assignments and projects.
- 6. Practical lab exercises with maps and models.
- 7. Field visits to oil-related locations and institutions.

66. Evaluation methods

Weekly, monthly, daily, and end-of-semester exams.

67.Faculty								
Faculty Members								
Academic Rank	Specializa	ation	Special Requirements/Skills (if applicable)		Number of teaching staff			
	General	Special			Staff	Lecturer		
Professor Dr.	Geology	Petroleum Geology			angel			

Professional Development

Mentoring new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty, such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

68. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

69. The most important sources of information about the program

- Main Textbook: Elements of Petroleum Geology by Richard C. Selley
- **Recommended References:** *Petroleum Geology: A Concise Study* by R.E. Chapman *Petroleum* by V. Sokolov

70.Program Development Plan

Including topics that align with modernity, the requirements of scientific and practical life, and what scientists have reached on an ongoing basis.

	Program Skills Outline														
							Requ	uired	progr	am Lo	earning	g outcon	ies		
Year/Level Co	Course Code	Course Course Code Name	Course Basic or Name optional	Knov	vledge			Skill	5			Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C 3	C4
2023- 2024/Forth	Geo	Petroleum Geology	Basic												
															ļ

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

49.Course	Name:						
Petroleum Ge	eology						
50.Course	Code:						
Geo	Geo						
51.Semester / Year:							
Second /First	course						
52.Descrip	otion Pre	paration Date:					
14/11/2024							
53.Availab	le Attend	lance Forms:					
Attenda	nce only						
54.Number	of Cred	it Hours (Total) / Number of Units (Tota	l)				
<u> </u>	. 1						
60 sem	ester ho	urs. 4 hours weekly					
55. C	ourse a	dministrator's name (mention all, if n	nore than one				
Name:	Drof Dr	Sawcan H Faical					
Email:	r ror	sawsan n raisa					
	<u>sawsanann</u>						
56.Course	Objectiv	es					
Course Objective	 Course Objectives Establish the fundamental principles of petroleum geology Understand the geological processes responsible for petroleum generation and accumulation. Qualify students to analyze reservoir and source rock characteristics. Identify the types of oil traps and their geological settings. Relate geological knowledge to Iraq's petroleum industry. 						
57.Teachin	g and Le	arning Strategies					
Strategy	- Lo	ecture delivery method.					
	- Student groups (Team Project).						
- Standard method.							
	- P	ractical lectures.					
58. Course St	ructure						
			.5				
Evaluation method	Learning method	Unit or subject name	Week				
2	2	Introduction to petroleum geology and origin	First				
2	2	theories	Constant				
2	2	2 Maturation of organic matter	Second				

2	2	3 Reservoir water chara	3 Reservoir water characteristics				
2	2	4 Reservoir content (oil	4 Reservoir content (oil and gas)				
2	2	5 Physical and chemical	properties of crude oil	Fifth			
2	2	6 Reservoir rock charac	teristics	Sixth			
2	2	7 Midterm exam		Seventh			
2	2	8 Source rocks		Eighth			
2	2	9 Types and evidence of	f oil migration	Ninth			
2	2	10 Causes of migration		Tenth			
2	2	11 Reservoir evaluation		Eleventh			
2	2	12 Oil traps		Twelfth			
2	2	13 Oil fields of southern	ı Iraq	Thirteenth			
2	2	14 Oil fields of central I	raq	Fourteenth			
2	2	15 Oil fields of northern	Iraq	Fifteenth			
50 Cour	50 Course Evaluation						
J9.Coul	59.Course Evaluation						
marks for	reports and a	an exam total 50% Fir	al exam mark 50%	ly exams, 15% practical			
60 Lear	ning and Te	aching Resources					
Required to	extbooks (cur	ricular books, if any)	Petroleum Geology Book in Arabic				
1	× ×	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
Main references (sources)			 n Textbook: <i>Elements of Petr</i> Richard C. Sellet Recommended <i>Petroleum Geol</i> R.E. Chapman <i>Petroleum</i> by V 	roleum Geology by ey References: ogy: A Concise Study by . Sokolov			
Recommer journals, re	nded books an eports)	d references (scientific					
Electronic	References, V	Vebsites					

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



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2024

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Academic Program Description Form

University Name: .Tikrit Faculty/Institute: .College of Sciences. Scientific Department: Applied of Geology. Academic or Professional Program Name: Geology of Iraq Final Certificate Name: Geology Academic System: Second course Description Preparation Date: 5/10/2024 File Completion Date: 14/11/2024

Signature:

Head of Department Name: Sawsin H. Fesal Signature:

Scientific Associate Name:Firas F. Rija

The file Date:

checked by:

Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department:

is

Date: Signature:

Approval of the Dean

71. Program Vision

The College of Science seeks to be one of the leading higher education institutions at Tikrit University in the field of modern education and scientific research through its scientific, research and administrative activities. It also works to provide an integrated path for its students and professors to make them active and creative in serving the community in the fields of teaching and learning living languages.

72. Program Mission

Working to prepare and graduate pioneering scientific and leadership competencies in the sciences and in developing the knowledge base in the field of scientific research to serve the local, regional and international community, in addition to training and refining the minds of students scientifically and cognitively.

73. Program Objectives

The curriculum is a basic applied curriculum that enables the student to learn comprehensive information about the geology of Iraq in all its details and apply it in the field through field trips. It is complementary to the study of sedimentology and stratigraphy that the student studies in other classes.

74. Program Accreditation

No

75. Other external influences

No

76. Program Structure							
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*			

Institution Requirements	90	90	Major decided
College Requirements	Yes		
Department Requirements	Yes		
Summer Training	Found		
Other			

* This can include notes whether the course is basic or optional.

77. Program Description							
Year/Level	Course Code	Course Name	(Credit Hours			
2024-2025/second	Geo24119	plate tectonic	theoretical	Practical			

78. Expected learning	78. Expected learning outcomes of the program				
Knowledge					
Learning Outcomes 1	Cognitive Objectives				
	A1- explaining an overview of synthetic geology.				
	A2- The importance of this science in geology.				
	A3- Identifying the plate of earth				
Skills					
Learning Outcomes 2	B1-After receiving this course, the student will be able to determine the				
	types of geological structures in the field and how to collect data.				
	B2 – The possibility of understanding the distribution of rock detectors and				
	their relationship to the presence of folds and cracks.				
	B3 – The possibility of determining the ancient stress causing the presence				
	of folds and faults for geological distortions.				
Learning Outcomes 3	Indicative content includes the following.				
	1- Presenting the course in a clear and simplified manner, with the help of				
	graphs pictures, videos and illustrations, and presenting them through the				
	Power Point presentation technology.				
	2- Classroom and laboratory exercises and activities				
	3- Weekly and quarterly assignments and reports.				
Ethics					
Learning Outcomes 4	Learn about analysis of folds classification and faults.				
Learning Outcomes 5	Learning Outcomes Statement 5				

79. Teaching and Learning Strategies

- Lecture delivery method:
- 2- Student groups (Team Project).
- 3- Standard method.

4- Practical lectures

80. Evaluation methods

Weekly, monthly, daily and end of semester exams.

81.Faculty						
Faculty Members						
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Asst. prof. Dr.	Geology	Structural geology			angel	

Professional Development

Mentoring new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

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Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

82. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

83. The most important sources of information about the program

Husein and abood, 2023 Plate tectonic in Arabic

84.Program Development Plan

Including topics that are in line with modernity and the requirements of scientific and practical life, and what scientists have reached, on an ongoing basis.

Program Skills Outline															
				Required program Learning outcomes											
Year/Level Course Code	Course Code	Course Name	Basic or optional	Knov	vledge			Skill	5			Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	С3	C4
2024- 2025/second	Geo24119	plate tectonic	Basic												
															L

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

61.Course Name:

Plate tectonic

62.Course Code:

Geo24119

63.Semester / Year:

Second /Second course

64. Description Preparation Date:

14/11/2024

65. Available Attendance Forms:

Attendance only

66.Number of Credit Hours (Total) / Number of Units (Total)

60 semester hours. 4 hours weekly

67. Course administrator's name (mention all, if more than one name) Name: Asst. Prof. Dr. Ayyed H. Ward

Email: <u>aiedwarid@tu.edu.iq</u>

68.Course Objectives

Course Objectives

Explaining an overview of structural geology as an important geology and identifying the geological structures in the field

69.Teaching and Learning Strategies Strategy 11- Lecture delive

- 11- Lecture delivery method.
- 2- Student groups (Team Project).
- 3- Standard method.
- 4- Practical lectures.

70. Course Structure

Evaluation method	Learning method	Unit or subject name	Week
2	2	Introduction to earth structures	First
2	2	Waves and their behavior in earth	Second
2	2	Origin of the Earth	Third
2	2	Continental Drift Theory and its indications	Fourth
2	2	Sea Floor Spreading Theory and its indications	Fifth
2	2	Earth's Magnetic Field	Sixth
2	2	Origin of cotenants	Seventh
2	2	Mid-term Exam 1	Eighth

2	2	Triple Junctions		Ninth	
2	2	Mid Ocean Ridge		Tenth	
2	2	Continental margins		Eleventh	
2	2	Divergent boundarie	s	Twelfth	
2	2	Convergent boundari	ies	Thirteenth	
2	2	Transform boundarie	es	Fourteenth	
2	2	Mid-term Exam 2		Fifteenth	
71.0	D 1 (
71.Course Evaluation					
Distribution	as follow:	s: 35 theoretical marks	for monthly and daily e	xams, 15% practical mar	·ks
for reports a	nd an exa	m, total 50%. Final exar	n mark 50%		
72.Learnin	ng and T	eaching Resources			
Required text	books (cu	rricular books, if any)	Husein and abood,	2023 Plate tectonic in	1
			Arabic		
Main references (sources)					
Recommended books and references (scientific					
journals, reports)					
Electronic Re	ferences,	Websites			

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



Academic Program and Course Description Guide

2024

Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

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In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

Academic Program Description: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

<u>Course Description</u>: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

<u>Program Vision</u>: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

<u>Program Mission</u>: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

<u>**Curriculum Structure:**</u> All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must determine the learning outcomes of each course in a way that achieves the objectives of the program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extracurricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: .Tikrit Faculty/Institute: .College of Sciences. Scientific Department: Applied of Geology. Academic or Professional Program Name: Geology of Iraq Final Certificate Name: Geology Academic System: Second course Description Preparation Date: 5/10/2024 File Completion Date: 14/11/2024

Signature:

Head of Department Name: Sawsin H. Fesal Signature:

Scientific Associate Name:Firas F. Rija

The file Date:

checked by:

Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department:

is

Date: Signature:

Approval of the Dean

85. Program Vision

The College of Science seeks to be one of the leading higher education institutions at Tikrit University in the field of modern education and scientific research through its scientific, research and administrative activities. It also works to provide an integrated path for its students and professors to make them active and creative in serving the community in the fields of teaching and learning living languages.

86. Program Mission

Working to prepare and graduate pioneering scientific and leadership competencies in the sciences and in developing the knowledge base in the field of scientific research to serve the local, regional and international community, in addition to training and refining the minds of students scientifically and cognitively.

87.**Program Objectives**

The curriculum is a basic applied curriculum that enables the student to learn comprehensive information about the geology of Iraq in all its details and apply it in the field through field trips. It is complementary to the study of sedimentology and stratigraphy that the student studies in other classes.

88. Program Accreditation

No

89. Other external influences

No

90.Program Structure							
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*			

Institution Requirements	90	90	Major decided
College Requirements	Yes		
Department Requirements	Yes		
Summer Training	Found		
Other			

* This can include notes whether the course is basic or optional.

91. Program Description							
Year/Level	Course Code	Course Name	(Credit Hours			
2024-2025/third	Geo36136	Structural analysis	theoretical	Practical			

92. Expected learning	92. Expected learning outcomes of the program				
Knowledge					
Learning Outcomes 1	Cognitive Objectives				
	A1- explaining an overview of synthetic geology.				
	A2- The importance of this science in geology.				
	A3- Identifying the geological structures in the field.				
	A4- Identifying geological formations and their distributions in the field.				
Skills					
Learning Outcomes 2	B1-After receiving this course, the student will be able to determine the				
	types of geological structures in the field and how to collect data.				
	B2 – The possibility of understanding the distribution of rock detectors and				
	their relationship to the presence of folds and cracks.				
	B3 – The possibility of determining the ancient stress causing the presence of folds and faults for geological distortions				
Learning Outcomes 3	Indicative content includes the following.				
	1- Presenting the course in a clear and simplified manner, with the help of				
	graphs pictures, videos and illustrations, and presenting them through the				
	Power Point presentation technology.				
	2- Classroom and laboratory exercises and activities				
	3- Weekly and quarterly assignments and reports.				
Ethics					
Learning Outcomes 4	Learn about analysis of folds classification and faults.				
Learning Outcomes 5	Learning Outcomes Statement 5				

93. Teaching and Learning Strategies

Lecture delivery method: 2- Student groups (Team Project).

3- Standard method.

4- Practical lectures

94. Evaluation methods

Weekly, monthly, daily and end of semester exams.

95.Faculty						
Faculty Members						
Academic Rank	SpecializationSpecialNRequirements/Skills (if applicable)I				Number of the teaching staff	
	General	Special			Staff	Lecturer
Asst. prof. Dr.	Geology	Structural geology			angel	

Professional Development

Mentoring new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

96. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

97. The most important sources of information about the program

Structural Geology, Qazi, 2009 in Arabic 2- Structural Geology, Groshong, 2006

98.Program Development Plan

Including topics that are in line with modernity and the requirements of scientific and practical life, and what scientists have reached, on an ongoing basis.

Program Skills Outline															
				Required program Learning outcomes											
Year/Level Cour Coc	Course Code	Course Course Code Name	Basic or K optional	Knowledge S		Skills		Ethics							
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C 3	C4
2024- 2025/third	Geo36136	Structural analysis	Basic												

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

Structural analysis

74.Course Code:

Geo36136

75.Semester / Year:

Second /Second course

76.Description Preparation Date:

14/11/2024

77. Available Attendance Forms:

Attendance only

78.Number of Credit Hours (Total) / Number of Units (Total)

60 semester hours. 4 hours weekly

79.Course administrator's name (mention all, if more than one name)Name: Asst. Prof. Dr. Ayyed H. Ward

Email: aiedwarid@tu.edu.iq

80.Course Objectives

Explaining an overview of structural geology as an important geology and identifying the geological structures in the field

81.Teaching	g and Learning Strategies
Strategy	11- Lecture deliv

11- Lecture delivery method.
2- Student groups (Team Project).

- 3- Standard method.
- 4- Practical lectures.

82. Course Structure

Evaluation method	Learning method	Unit or subject name	Week
2	2	Introduction to structural geology and	First
		structural analysis	
2	2	Force and stress in rocks	Second
2	2	Strain and rock deformation.	Third
2	2	Folds and fold analysis	Fourth
2	2	Fold classification	Fifth
2	2	Folding mechanism	Sixth
2	2	Thickness measurement of beds	Seventh
2	2	Mid-term Exam 1	Eighth

2	2	Fractures and their	Fractures and their classification by using							
		stereographic project	ion							
2	2	Fold analysis by	using stereographic	Tenth						
		projection	projection							
2	2	Faults and their types	Faults and their types Eleventh							
2	2	Structures associated	with faults	Twelfth						
2	2	Diaper structures		Thirteenth						
2	2	Igneous structures		Fourteenth						
2	2	Mid-term Exam 2		Fifteenth						
83.Course	Evaluation	n								
Distribution a	s follows: 1	35 theoretical marks	for monthly and daily e	xams, 15% practical marks						
for reports an	d an exam,	total 50%. Final exam	n mark 50%	-						
84.Learning	g and Tea	ching Resources								
Required textb	ooks (curri	cular books, if any)	Structural Geology,	Gazi, 2009 in Arabic						
Main references (sources)			Structural Geology, Groshong, 2006							
Recommended books and references (scientific										
journals, reports)										
Electronic Ref	erences We	ehsites								
		0001000								

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



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2024

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University Name: .Tikrit Faculty/Institute: .College of Sciences. Scientific Department: Applied of Geology. Academic or Professional Program Name: Geology ofIraq Final Certificate Name: Geology Academic System: Second course Description Preparation Date: 5/10/2024 File Completion Date: 14/11/2024

Signature:

Head of Department Name: Sawsin H. Fesal Signature:

Scientific Associate Name:Firas F. Rija

The file Date:

checked by:

Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department:

is

Date: Signature:

Approval of the Dean

99. Program Vision

The College of Science seeks to be one of the leading higher education institutions at Tikrit University in the field of modern education and scientific research through its scientific, research and administrative activities. It also works to provide an integrated path for its students and professors to make them active and creative in serving the community in the fields of teaching and learning living languages.

100. Program Mission

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101. **Program Objectives**

The curriculum is a basic applied curriculum that enables the student to learn comprehensive information about the geology of Iraq in all its details and apply it in the field through field trips. It is complementary to the study of sedimentology and stratigraphy that the student studies in other classes.

102. Program Accreditation

No

103. Other external influences

No

104. Program Structure								
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*				

Institution Requirements	90	90	Major decided
College Requirements	Yes		
Department Requirements	Yes		
Summer Training	Found		
Other			

* This can include notes whether the course is basic or optional.

105. Program Description							
Year/Level	Course Code	Course Name	(Credit Hours			
2024-2025/second	Geo23016	Structural geology	theoretical	Practical			

106. Expected learning outcomes of the program					
Knowledge					
Learning Outcomes 1	Cognitive Objectives				
	A1- explaining an overview of synthetic geology.				
	A2- The importance of this science in geology.				
	A3- Identifying the geological structures in the field.				
	A4- Identifying geological formations and their distributions in the field.				
Skills					
Learning Outcomes 2	B1-After receiving this course, the student will be able to determine the				
	types of geological structures in the field and how to collect data.				
	B2 - The possibility of understanding the distribution of rock detectors and				
	their relationship to the presence of folds and cracks.				
	B3 – The possibility of determining the ancient stress causing the presence				
	of folds and faults for geological distortions.				
Learning Outcomes 3	Indicative content includes the following.				
	1- Presenting the course in a clear and simplified manner, with the help of				
	graphs pictures, videos and illustrations, and presenting them through the				
	Power Point presentation technology.				
	2- Classroom and laboratory exercises and activities				
	3- Weekly and quarterly assignments and reports.				
Ethics					
Learning Outcomes 4	Learn about folds classification and faults.				
Learning Outcomes 5	Learning Outcomes Statement 5				

107. Teaching and Learning Strategies

Lecture delivery method:

2- Student groups (Team Project).

3- Standard method.

4- Practical lectures

108. Evaluation methods

Weekly, monthly, daily and end of semester exams.

109. Faculty						
Faculty Members						
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Asst. prof. Dr.	Geology	Structural geology			angel	

Professional Development

Mentoring new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

110. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

111. The most important sources of information about the program

Structural Geology, Qazi, 2009 in Arabic 2- Structural Geology, Fossen, 2012

112.Program Development PlanIncluding topics that are in line with modernity and the requirements of scientific and
practical life, and what scientists have reached, on an ongoing basis.
	Program Skills Outline														
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knov	vledge			Skill	5			Ethics			
			A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C 3	C4	
2024- 2025/Second	Geo23016	Structural geology	Basic												

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

Structural geology

86.Course Code:

Geo23016

87.Semester / Year:

Second /Second course

88.Description Preparation Date:

14/11/2024

89. Available Attendance Forms:

Attendance only

90.Number of Credit Hours (Total) / Number of Units (Total)

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91. Course administrator's name (mention all, if more than one name) Name: Asst. Prof. Dr. Ayyed H. Ward

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92.Course Objectives Course Objectives

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93.Teaching	g and Learning Strategies
Strategy	11- Lecture deliv

11- Lecture delive	ry method.
2- Student groups	(Team Project).

- 3- Standard method.
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94. Course Structure

Evaluation	Learning	Unit or subject name	Week
method	method	Structural angle av Defined it and their	First
2	2	divisions	FIRST
2	2	Folds and their elements.	Second
2	2	Geometrical classification of folds.	Third
2	2	The relationship between folds and plate	Fourth
		tectonic.	
2	2	Genetic analysis of folds	Fifth
2	2	Folding mechanism	Sixth
2	2	Fractures	Seventh
2	2	Mid-term Exam 1	Eighth

	2	2	Faults and faulting.		Ninth				
	2	2	The relationship betw	The relationship between faults and folds. Tenth					
	2	2	Paleo-stress	Paleo-stress Eleventh					
	2	2	Unconformities		Twelfth				
	2	2	Diaper structures		Thirteenth				
	2	2	Igneous structures		Fourteenth				
	2	2	Mid-term Exam 2		Fifteenth				
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Distribution as follows: 35 theoretical marks		for monthly and daily e	xams, 15% practical ma	rks					
for reports and an exam, total 50%. Final exam		n mark 50%	-						
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Main references (sources)				Structural Geology,	Fossen, 2012				
Recommended books and references (scientific			references (scientific						
journals, reports)									
Electronic Deferences Websites									
<u> </u>			00100						

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



Academic Program and Course Description Guide

2024

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Academic Program Description Form

University Name:Tikrit...... Faculty/Institute:Science...... Scientific Department:Geology...... Academic or Professional Program Name: .B.Sc. ..Geology...... Final Certificate Name: B.Sc. ..Geology...... Academic System: ...Semesters..... Description Preparation Date: 5/10/2024 File Completion Date: 0/1412024/

Signature: Head of Department Name: Dr. Faris Nejris Hassan Date: 14/10/2024 Signature: Scientific Associate Name: Dr. Firas Faris Rajaa Date: 14/10/2024

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

Approval of the Dean

113. **Program Vision**

This academic program description provides a concise summary of the program's key features and the learning outcomes expected of the student, demonstrating whether the student has made the most of the opportunities available. It is

accompanied by a description of each course within the program.

114. **Program Mission**

To prepare and graduate pioneering scientific and leadership competencies in geology and its sciences, and to develop the knowledge base in the field of scientific research to serve the local, regional, and international communities. Furthermore, to train and refine students' minds scientifically and intellectually, to emphasize social and cultural values, and to respond to local market requirements. Furthermore, to train students in investing in the Earth's resources and wealth, and employing them to develop the country's economy and advance its economic and investment landscape.

115. **Program Objectives**

Providing an overview of these two methods and their important role in geological surveying operations in general, as well as their use in various exploration operations.

116. Program Accreditation

Does the program have program accreditation? And from which agency? Nothing.

117. Other external influences

Is there a sponsor for the program? Nothing.

118. **Program Structure**

Program Structure	Number of	Credit hours	Percentage	Reviews*
	Courses			
Institution	52	3.5		Basic course
Requirements	-	010		
College Requirements	Yes			
Department	Yes			
Requirements	4			
Summer Training	nothing			
Other				

* This can include notes whether the course is basic or optional.

119. Program Description						
Year/Level	Course Code	Course Name	(Credit Hours		
2023-2024/ Fourth	Geo48146	Potential and Magnetic Methods	theoretical	practical		
			2	3		

120. Expected lea	rning outcomes of the program
Knowledge	
A- Knowledge and	Learning Outcomes Statement 1
Understanding:	
After studying this course,	
students will be able to identify	
the gravitational properties of	
geological formations,	
understand how they occur, and	
use gravitational methods to	
explore geological formations,	
including their composition and	
determining their depth and	
dimensions. Magnetic methods	
are used in geological surveys.	
They help determine the	
dimensions of aquifers,	
determine the quality of	
groundwater, evaluate reservoir	
properties, and identify weak	
areas in the soil.	
B- Subject-Specific Skills:	
Developing students' analytical	
and applied skills, enhancing	
their deductive reasoning, and	
improving their ability to work	
with laboratory equipment are	
important objectives.	
Skills	
1- Thinking Skill According to	Learning Outcomes Statement 2
the Student's Ability	
The goal of this skill is for the	
student to believe in concrete	
matters (the student's abilities),	
understand when, what, and	
how to think, and work to	
improve their ability to think	
rationally.	
2- Higher Thinking Skill (The	
goal of this skill is to teach	
students to think carefully	
before making decisions that	
Will Snape their fives)	
3- Critical Thinking Strategy in	

Learning (A term that refers to the highest levels of thinking, which aims to pose a problem and then analyze it logically to arrive at the desired solution).	
Ethics	
Developing students' ability to	Learning Outcomes Statement 4
share ideas	

121. Teaching and Learning Strategies

Teaching and Learning Methods:

Lectures are delivered in a practical, real-world manner, engaging students in the course material without deviating from the core subject matter. The goal is to ensure that the material is presented within a practical application framework. In addition, students are assigned individual and group activities and assignments. Modern presentation tools, supported by graphics and illustrations, will be used.

Assessment Methods:

1- Participation Assessment: Assessing the extent of the student's participation in class discussions and their response to questions and challenges.

2- Contribution Assessment: Assessing the student's contribution to lectures and discussions by offering new ideas, providing relevant examples and experiences, and sharing additional readings or resources.

3- Creativity Assessment: Assessing the student's ability to creatively apply the concepts presented in the course and provide innovative solutions to challenges.

4- Collaboration Assessment: Assessing the student's collaboration with classmates in group work and their contribution to achieving the objectives of joint projects.

5. A variety of tools can be used to assess participation, such as participation reports, class discussion assessments, lecturer notes, and evaluations of group projects and activities. Assessment criteria should be made clear to students from the outset, and constructive feedback should be provided to promote continuous improvement.

6. Allocating a percentage of the grade to assignments, daily tests, monthly and final exams is a guide to assessing commitment and academic achievement.

122. Evaluation methods

Weekly, monthly, daily and final exams.

123. Faculty						
Faculty Members						
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Doctor	Geology	Geophysics			Staff	

Professional Development
Mentoring new faculty members
Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the
institution and department level.
Professional development of faculty members
Briefly describe the academic and professional development plan and arrangements for faculty

such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

124. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others) Central Admission

125. The most important sources of information about the program

Principle of geophysical methods in geological exploration. Applied Geophysics.

126. Program Development Plan

20% annually

Continuous inclusion of topics that are in line with modernity, the requirements of scientific and practical life, and the findings of scientists.

	Program Skills Outline														
				Required program Learning outcomes											
Year/Level	Course Code	Course Code Course Name		Knowledge			Skills			Ethics					
			•	A1	A2	A3	A4	B1	B2	B 3	B4	C1	C2	С3	C4
2024-2025	Geo48146	Potential and Magnetic Methods	Basic												

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

	Course Description Form	
97.Cou	rse Name:	
Potential a	nd Magnetic Methods	
98.Cou	irse Code:	
Geo48146		
99.Sen	nester / Year:	
Semester		
100.	Description Preparation Date:	
5/10/20	24	
101.	Available Attendance Forms:	
In-p	person only	
102.	Number of Credit Hours (Total) / Number of Units (Total)	<u> </u>
125	semester hours. 2 hours per week of theory, 3 hours of practical work, and	50 h
103.	Course administrator's name (mention all, if more than one name)	
Nar	ne: Dr. Riyadh Muhawish Rashid Alazzawi	
Ema	ail: <u>riyadhalazzawi@tu.edu.iq</u> .	
104.	Course Objectives	
Course Obje	Ectives Providing an overview of these two methods and their importan	role i
1UJ. Strategy	Teaching and Learning Strategies	<u> </u>
Strategy	Teaching and Learning Methods:	
	Lectures are delivered in a practical, real-world manner, engaging s students are assigned individual and group activities and assignmen	tude s. M
	Assessment Methods:	
	1- Participation Assessment: Assessing the extent of the student's pa	rtici
	2- Contribution Assessment: Assessing the student's contribution to	ectı
	3- Creativity Assessment: Assessing the student's ability to creativel	арр
	4- Collaboration Assessment: Assessing the student's collaboration v	rith
	5. A variety of tools can be used to assess participation, such as par constructive feedback should be provided to promote continuous im	icipa prov
	6. Allocating a percentage of the grade to assignments, daily tests, m	nth

1000							
100. Course Structure							
wee k	Hour s	Require d Learning Outcome s	Unit or subject name				
1	2+3	roviding stude	Introduction to the Gravitational Method and the Role of Scientists in its Development and I is	story			
2	2+3	vith the skill of nalyzing and	Gravitational Force and Attraction				
3	2+3	nterpreting gra	The Universal Law of Gravitation and its Assumptions				
4	2+3	nd magnetic da	Changes in the Values of Gravity				
5	2+3	h explorations.	Gravity Measurements and Their Types				
6	2+3		Devices for Gravity Measurement				
7	2+3		Field Procedures in Gravity Measurement				
8	2+3		Local Anomaly, Regional Anomaly, Interpretation of Gravity Anomalies, and Correction of	ravi			
9	2+3		Introduction to the Magnetic Method and Its Applications				
10	2+3		Principles and Basic Concepts of the Magnetic Method				
11	2+3		Sources of Magnetic Force and Their Devices				
12	2+3		Magnetic Variations with Time and Their Corrections				
13	2+3		Interpretation of Magnetic Anomalies				
14	2+3		Calculation of Depth and Dimensions to the Metallic Body				
15	2+3		Types of Interpretations				
107	. Course	e Evaluatio	n				
Distri 108	bution a . Learni	s follows: 35 ng and Tea	marks for monthly and daily semester exams. 15 marks for practical exanching Resources	s a			
Requit books	red text , if any)	books (curr	^{icu} l- Principle of geophysical methods in geological exploration				
Main	reference	s (sources)	2- Applied Geophysics				
Recon referen journa	nmended nces ls, report	books an (scientifi s)	d ic				
Electro	onic Refe	erences, Web	^{ssin} https://alamrigeo.com/input/docs/books/%D8%A7%D9% 9%8A%D8%A9.pdf	349			

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



Academic Program and Course Description Guide

2024

Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

<u>Academic Program Description</u>: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

<u>Course Description</u>: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

<u>Program Vision</u>: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

<u>Program Mission:</u> Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

<u>Curriculum Structure:</u> All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must

determine the learning outcomes of each course in a way that achieves the objectives of the program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extracurricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name:Tikrit...... Faculty/Institute:Science...... Scientific Department:Geology...... Academic or Professional Program Name: .B.Sc. ..Geology...... Final Certificate Name: B.Sc. ..Geology...... Academic System:Semesters...... Description Preparation Date: 5/10/2024 File Completion Date: 0/1412024/

Signature: Head of Department Name: Dr. Faris Nejris Hassan Date: 14/10/2024 Signature: Scientific Associate Name: Dr. Firas Faris Rajaa Date: 14/10/2024

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

Approval of the Dean

1. Program Vision

This academic program description provides a concise summary of the program's key features and the learning outcomes expected of the student, demonstrating whether the student has made the most of the opportunities available. It is

accompanied by a description of each course within the program.

2. Program Mission

To prepare and graduate pioneering scientific and leadership competencies in geology and its sciences, and to develop the knowledge base in the field of scientific research to serve the local, regional, and international communities. Furthermore, to train and refine students' minds scientifically and intellectually, to emphasize social and cultural values, and to respond to local market requirements. Furthermore, to train students in investing in the Earth's resources and wealth, and employing them to develop the country's economy and advance its economic and investment landscape.

3. Program Objectives

Providing an overview of these two methods and their important role in geological surveying operations in general, as well as their use in various exploration operations.

4. Program Accreditation

Does the program have program accreditation? And from which agency? Nothing.

5. Other external influences

Is there a sponsor for the program? Nothing.

6. **Program Structure**

Program Structure	Number of	Credit hours	Percentage	Reviews*
0	Courses		0	
Institution	52	3.5		Basic course
Requirements	02	<i>ene</i>		
College Requirements	Yes			
Department	Ves			
Requirements				
Summer Training	nothing			
Other				

* This can include notes whether the course is basic or optional.

7. Program Description								
Year/Level	Course Code	Course Name	(Credit Hours				
2023-2024/ Third	Geo12017	Field geology	theoretical	practical				
			2	3				

8. Expected learning outcomes of the program							
Knowledge							
1. An overview of field	Learning Outcomes Statement 1						
geology.							
2. The importance of this							
science in geology.							
3. Identify field data collection							
methods.							
4. Identify methods for							
selecting appropriate field data							
collection stations.							
Skills							
1- Thinking Skill According to	Learning Outcomes Statement 2						
the Student's Ability							
The goal of this skill is for the							
student to believe in concrete							
matters (the student's abilities),							
understand when, what, and							
how to think, and work to							
improve their ability to think							
rationally.							
2- Higher Thinking Skill (The							
goal of this skill is to teach							
students to think carefully							
before making decisions that							
will shape their lives)							
3- Critical Thinking Strategy in							
Learning (A term that refers to							
the highest levels of thinking,							
which aims to pose a problem							
and then analyze it logically to							
arrive at the desired solution).							
Ethics							
Developing students' ability to	Learning Outcomes Statement 4						
share ideas							

9. Teaching and Learning Strategies

Teaching and Learning Methods:

Lectures are delivered in a practical, real-world manner, engaging students in the course material without deviating from the core subject matter. The goal is to ensure that the material is presented within a practical application framework. In

addition, students are assigned individual and group activities and assignments. Modern presentation tools, supported by graphics and illustrations, will be used.

Assessment Methods:

1- Participation Assessment: Assessing the extent of the student's participation in class discussions and their response to questions and challenges.

2- Contribution Assessment: Assessing the student's contribution to lectures and discussions by offering new ideas, providing relevant examples and experiences, and sharing additional readings or resources.

3- Creativity Assessment: Assessing the student's ability to creatively apply the concepts presented in the course and provide innovative solutions to challenges.

4- Collaboration Assessment: Assessing the student's collaboration with classmates in group work and their contribution to achieving the objectives of joint projects.

5. A variety of tools can be used to assess participation, such as participation reports, class discussion assessments, lecturer notes, and evaluations of group projects and activities. Assessment criteria should be made clear to students from the outset, and constructive feedback should be provided to promote continuous improvement.

6. Allocating a percentage of the grade to assignments, daily tests, monthly and final exams is a guide to assessing commitment and academic achievement.

10. Evaluation methods

Weekly, monthly, daily and final exams.

11.Faculty							
Faculty Members							
Academic Rank	Specialization		Special Requirement (if applicable)	s/Skills)	Number of the teaching staff		
	General	Special			Staff	Lecturer	
Doctor	Geology	Geophysics			Staff		

Professional Development	
Mentoring new faculty members	

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

12.Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others) Central Admission

13. The most important sources of information about the program

Principle of Field Geology.

Geological Field Techniques – Angela L. Coe et al. *Geological Field Methods* – J. S. Craig & D. J. Vaughan.

14.Program Development Plan

20% annually

Continuous inclusion of topics that are in line with modernity, the requirements of scientific and practical life, and the findings of scientists.

	Program Skills Outline														
Required program Learning outcomes															
Year/Level	Course Code	Course Name	Basic or optional	Knov	wledge			Skills	5			Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	С3	C4
2024-2025	Geo12017	Field geology	Basic												
															ļ

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

1. Course Name:

Field geology

2. Course Code:

Geo12017

3. Semester / Year:

Semester

4. Description Preparation Date:

5/10/2024

5. Available Attendance Forms:

In-person only

6. Number of Credit Hours (Total) / Number of Units (Total)

125 semester hours. 2 hours per week of theory, 3 hours of practical work, a 50 hours of online study.

7. Course administrator's name (mention all, if more than one name) Name: Dr. Riyadh Muhawish Rashid Alazzawi Email: riyadhalazzawi@tu.edu.ig.

8. Course Objectives

Explain an overview of field geology as an important branch of geology and outline how field data are collected.

9. Teaching and Learning Strategies

Strategy

Course Objectives

Teaching and Learning Methods:

Lectures are delivered in a practical, real-world manner, engagi students in the course material without deviating from the co subject matter. The goal is to ensure that the material is present within a practical application framework. In addition, students a assigned individual and group activities and assignments. Mode presentation tools, supported by graphics and illustrations, will used.

Assessment Methods:

1- Participation Assessment: Assessing the extent of the studen participation in class discussions and their response to questic and challenges.

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6. Allocating a percentage of the grade to assignments, daily tes monthly and final exams is a guide to assessing commitment a academic achievement.

10. C	ourse S	tructure			
Week	Hours	Required	Unit or subject name	Learning method	Evaluation method
		Learning			
		Outcomes			
1	2+3	roviding stude	Field geology and its aims.	Explaining scien	Weekly, monthly, daily, writ
2	2+3	with the skills t	Requirements of the field a	material using mod	and end-of-year exams.
		nalyze and	safety.	clarifying it thro	
3	2+3	eological data	How to measure the geological	equations, solv	
4	2+3	nd phenomena	Observations.	problems on the bo	
4	2+3		planes by the touching method.	and using survey	
5	2+3		Determining the position of the	equipment.	
			planes by the bearing method.		
6	2+3		Determining the position of the		
7	2+3		Mid-term Exam		
8	2+3 2 ± 3		Positioning and altimator system		
0	2+3		Fostioning and artificter system		
9	2+3		Methods of the field investigatio		
10	2+3		Tabling of data.		
11	2+3		The field notes.		
12	2+3		Field sample collection methods		
13	2+3		Geological section drawing.		
14	2+3		Strati graphical section drawing.		

15	2+3		Structural section drawing.					
11.C	Course E	valuation						
Distrib	Distribution as follows: 35 marks for monthly and daily semester exams. 15 marks for practical							
exams	and repo	orts. 50 mark	s for final exams.					
12.L	earning	and Teachi	ng Resources					
Requir	ed text	books (cur	rici Principle of Field Geolo	av				
books,	if any)		Theople of Field Geolo	gy.				
Main r	eferences	(sources)	Geological Field Tech	niques – Angela L. C	Coe et al.			
Recom	mended	books a	nd					
referen	ces (scie	entific journa	s, Geological Field Meth	ods – J. S. Craig & D). J. Vaughan.			
reports)							
Electro	onic Refer	rences, Websi	es					
	https://www.scribd.com/document/254091610/%D9%85%D9%84%D8%AE%D8%A							
	% <u>D8%AC%D9%8A%D9%88%D9%84%D9%88%D9%88%D9%88%AC%D9%8A%D8%A7-</u>							
			nttps://uot.edu.ly/moduledescr	iption.php?lang=ar&modu	lle=GE400&program=121			

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



Academic Program and Course Description Guide

2024

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<u>Program Vision</u>: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

<u>Program Mission:</u> Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

<u>Curriculum Structure:</u> All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must

determine the learning outcomes of each course in a way that achieves the objectives of the program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extracurricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name:Tikrit...... Faculty/Institute:Science...... Scientific Department:Geology...... Academic or Professional Program Name: .B.Sc. ..Geology...... Final Certificate Name: B.Sc. ..Geology...... Academic System:Semesters...... Description Preparation Date: 5/10/2024 File Completion Date: 0/1412024/

Signature: Head of Department Name: Dr. Faris Nejris Hassan Date: 14/10/2024 Signature: Scientific Associate Name: Dr. Firas Faris Rajaa Date: 14/10/2024

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

Approval of the Dean

1. Program Vision

This academic program description provides a concise summary of the program's key features and the learning outcomes expected of the student, demonstrating whether the student has made the most of the opportunities available. It is

accompanied by a description of each course within the program.

2. Program Mission

To prepare and graduate pioneering scientific and leadership competencies in geology and its sciences, and to develop the knowledge base in the field of scientific research to serve the local, regional, and international communities. Furthermore, to train and refine students' minds scientifically and intellectually, to emphasize social and cultural values, and to respond to local market requirements. Furthermore, to train students in investing in the Earth's resources and wealth, and employing them to develop the country's economy and advance its economic and investment landscape.

3. Program Objectives

Providing an overview of these two methods and their important role in geological surveying operations in general, as well as their use in various exploration operations.

4. Program Accreditation

Does the program have program accreditation? And from which agency? Nothing.

5. Other external influences

Is there a sponsor for the program? Nothing.

6. **Program Structure**

Program Structure	Number of	Credit hours	Percentage	Reviews*
0	Courses		0	
Institution	52	3.5		Basic course
Requirements	02	<i>ene</i>		
College Requirements	Yes			
Department	Ves			
Requirements				
Summer Training	nothing			
Other				

* This can include notes whether the course is basic or optional.

7. Program Description											
Year/Level	Course Code	Course Name	(Credit Hours							
2023-2024/ third	Geo35125	Seismic and electrical	theoretical	practical							
			2	3							

8. Expected learning outcomes of the program								
Knowledge								
A- Knowledge and	Learning Outcomes Statement 1							
Understanding:								
After studying this course,								
students will be able to identify								
the types of seismic waves,								
understand how they occur, and								
use seismic methods to explore								
geological structures, including								
their composition and								
determining their depth and								
dimensions. The electrical								
method is used for shallow								
depths, particularly in								
hydrogeological surveys. It								
helps determine the dimensions								
of aquifers, determine								
groundwater quality, evaluate								
reservoir properties, and								
identify weak areas in the soil.								
B- Subject-Specific Skills:								
Developing students' analytical								
and applied skills, enhancing								
their deductive reasoning, and								
improving their ability to work								
with laboratory equipment are								
important goals.								
Skills								
1- Thinking Skill According to	Learning Outcomes Statement 2							
the Student's Ability								
The goal of this skill is for the								
student to believe in concrete								
matters (the student's abilities),								
understand when, what, and								
how to think, and work to								
improve their ability to think								
Tauonally.								
2- right i ninking Skill (The								
goal of this skill is to leach students to think corefully								
before making decisions that								
will shape their lives)								
3 Critical Thinking Stratagy in								
I earning (A term that refers to								
 2- Inghei Thinking Skill (The goal of this skill is to teach students to think carefully before making decisions that will shape their lives) 3- Critical Thinking Strategy in Learning (A term that refers to 								

the highest levels of thinking, which aims to pose a problem and then analyze it logically to arrive at the desired solution).	
Ethics	
Developing students' ability to	Learning Outcomes Statement 4
share ideas	

9. Teaching and Learning Strategies

Teaching and Learning Methods:

Lectures are delivered in a practical, real-world manner, engaging students in the course material without deviating from the core subject matter. The goal is to ensure that the material is presented within a practical application framework. In addition, students are assigned individual and group activities and assignments. Modern presentation tools, supported by graphics and illustrations, will be used.

Assessment Methods:

1- Participation Assessment: Assessing the extent of the student's participation in class discussions and their response to questions and challenges.

2- Contribution Assessment: Assessing the student's contribution to lectures and discussions by offering new ideas, providing relevant examples and experiences, and sharing additional readings or resources.

3- Creativity Assessment: Assessing the student's ability to creatively apply the concepts presented in the course and provide innovative solutions to challenges.

4- Collaboration Assessment: Assessing the student's collaboration with classmates in group work and their contribution to achieving the objectives of joint projects.

5. A variety of tools can be used to assess participation, such as participation reports, class discussion assessments, lecturer notes, and evaluations of group projects and activities. Assessment criteria should be made clear to students from the outset, and constructive feedback should be provided to promote continuous improvement.

6. Allocating a percentage of the grade to assignments, daily tests, monthly and final exams is a guide to assessing commitment and academic achievement.

10. Evaluation methods

Weekly, monthly, daily and final exams.

11.Faculty							
Faculty Members							
Academic Rank	demic Rank Specialization		Special Requirement (if applicable	s/Skills)	Number of the teaching staff		
	General	Special			Staff	Lecturer	
Doctor	Geology	Geophysics			Staff		

Professional Development						
Mentoring new faculty members						
Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the						
institution and department level.						
Professional development of faculty members						
Briefly describe the academic and professional development plan and arrangements for faculty						

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

12.Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others) Central Admission

13. The most important sources of information about the program

Principle of geophysical methods in geological exploration. Applied Geophysics.

14.Program Development Plan

20% annually

Continuous inclusion of topics that are in line with modernity, the requirements of scientific and practical life, and the findings of scientists.

Program Skills Outline															
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knov	Knowledge			Skills			Ethics				
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	С3	C4
2024-2025	Geo35125	Seismic and electrical	Basic												

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

1. Course Name:

Seismic and electrical

2. Course Code:

Geo35125

3. Semester / Year:

Semester

4. Description Preparation Date:

5/10/2024

5. Available Attendance Forms:

In-person only

6. Number of Credit Hours (Total) / Number of Units (Total)

125 semester hours. 2 hours per week of theory, 3 hours of practical wo and 50 hours of online study.

7. Course administrator's name (mention all, if more than one name) Name: Dr. Riyadh Muhawish Rashid Alazzawi Email: riyadhalazzawi@tu.edu.iq

8. Course Objectives

Course Objectives

Providing an overview of these two methods an their important role in geological surveying operations in general, as well as their use in various exploration operations.

9. Teaching and Learning Strategies

Strategy

Teaching and Learning Methods:

Lectures are delivered in a practical, real-world mann engaging students in the course material without deviati from the core subject matter. The goal is to ensure that t material is presented within a practical application framewo In addition, students are assigned individual and gro activities and assignments. Modern presentation too supported by graphics and illustrations, will be used.

Assessment Methods:

1- Participation Assessment: Assessing the extent of t student's participation in class discussions and their respor to questions and challenges.
2- Contribution Assessment: Assessing the studen contribution to lectures and discussions by offering new ide providing relevant examples and experiences, and shari additional readings or resources.

3- Creativity Assessment: Assessing the student's ability creatively apply the concepts presented in the course a provide innovative solutions to challenges.

4- Collaboration Assessment: Assessing the studen collaboration with classmates in group work and th contribution to achieving the objectives of joint projects.

5. A variety of tools can be used to assess participation, such participation reports, class discussion assessments, lectur notes, and evaluations of group projects and activiti Assessment criteria should be made clear to students from t outset, and constructive feedback should be provided promote continuous improvement.

6. Allocating a percentage of the grade to assignments, da tests, monthly and final exams is a guide to assessi commitment and academic achievement.

10. Co	ourse Str	ructure			
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2+3	Providing students with skills to analyze and	Introduction to Geophysics and the Role of Scientists in Advancing this Science	Explaining scientific	Weekly, mont daily, written, and-of-year exams
2	2+3	electrical data in	Principles of Sound Wave Propagation in Rock Media.	modern	enu-or-year exams
3	2+3	exploration.	Sources of energy used in seismi exploration	techniques,	
4	2+3		Types of seismic surveys.	through	
5	2+3		Modern techniques in seismic reflection methods.	equations solving	
6	2+3		Modern techniques in seismic refraction methods.	problems on board.	
7	2+3		Differences between seismic reflection and seismic refraction surveys.		
8	2+3		Ambiguity in interpreting seismi data.		
9	2+3		Introduction to the Electrical Method and its Applications.		
10	2+3		The Electrical Resistivity Metho		

			and De	eployment Techniques.
11	2+3		Field N	Measurement Methods for
			Electri	ical Conductivity.
12	2+3		Metho	ds for interpreting electric
			survey	v results.
13	2+3		Present	ntation of Electrical
			Resisti	ivity Results.
14	2+3		Ambig	guity in the Interpretation
			Electri	ical Resistivity Method.
15	2+3		Source	es of Noise in Electrical
			Resisti	ivity Measurements.
11.Co	ourse Ev	aluation		
Distribu	ution as	follows: 35 marks fo	r mont	thly and daily semester exams. 15 marks for
practica	al exams a	and reports. 50 marks	s for fin	nal exams.
12.Le	earning a	and Teaching Resou	irces	
Require	d textboo	ks (curricular books, if	any)	1. Principle of geophysical methods
				eological exploration
Main ra	foroncos ((cources)		Applied Coordinates
Iviain ie	lefences ((sources)		z. Applied Geophysics
Recomm	nended	books and refe	erences	
(scientif	ic journal	ls, reports)		
Electron	nic Refere	nces, Websites		

Ministry Higher Education and Scientific Research Scientific Supervision and Evaluation Authority circleQuality Assurance and Academic Accreditation Accreditation Department



Academic Program and Course Description Guide

2024

The Introduction:

The educational program is a coordinated and organized package of courses that include procedures and experiences organized in the form of study vocabulary, the main purpose of which is to build and refine the skills of graduates, making them qualified to meet the requirements of the labor market. It is reviewed and evaluated annually through internal or external audit procedures and programs, such as the external examiner program.

The academic program description provides a brief summary of the main features of the program and its courses, indicating the skills that students are working to acquire based on the objectives of the academic program. The importance of this description is evident because it represents the cornerstone in obtaining program accreditation, and the teaching staff participates in writing it under the supervision of the scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the vocabulary and paragraphs of the previous guide in light of the developments and changes in the educational system in Iraq, which included a description of the academic program in its traditional form (annual, semester) in addition to adopting the description of the academic program circulated pursuant to the letter of the Department of Studies TM3/2906 dated 5/3/2023 regarding programs that adopt the Bologna process as a basis for their work.

In this regard, we cannot but emphasize the importance of writing a description of academic programs and courses to ensure the smooth running of the educational process.

Concepts and terms:

<u>Academic Program Description:</u>The academic program description provides a concise summary of its vision, mission and objectives, including a precise description of the targeted learning outcomes according to specific learning strategies.

<u>Course Description</u>: Provides a concise summary of the main characteristics of the course and the learning outcomes expected of the student, demonstrating whether the student has made the most of the learning opportunities available. It is derived from the programme description.

<u>Program vision:</u> An ambitious vision for the future of the academic program to be an advanced, inspiring, motivating, realistic and applicable program.

Program message: It briefly explains the objectives and the activities required to achieve them, and it also identifies the paths and directions of the programme's development.

<u>Program objectives:</u> These are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

<u>**Curriculum structure:**</u>All courses/subjects included in the academic program according to the approved learning system (semester, year, Bologna track) whether they are required (ministry, university, college and scientific department) with the number of academic units.

Learning outcomes: A compatible set of knowledge, skills and values acquired by the student after successfully completing the academic program. The learning outcomes for each course must be determined in a way that achieves the program's objectives.

<u>**Teaching and learning strategies</u>**: It is the strategies used by the faculty member to develop the teaching and learning of the student and they are plans that are followed to reach the learning objectives. That is, it describes all the classroom and extracurricular activities to achieve the learning outcomes of the program.</u>

Academic Program Description Form

University name: University ofTikrit...... College/Institute: College ofthe sciences...... Scientific Department: Department ofEarth Sciences...... Name of academic or professional program:Master's.....mathematics Final Certificate Name:Master'sin .Mathematics..... Academic system: Annual Description preparation date:10/5/2023 Date of filling the file: 22/01/2025

the signature : Scientific Assistant Name: the date : the signature : Name of the Department Head: the date :

Check the file before Quality Assurance and University Performance Division Name of the Director of the Quality Assurance and University Performance Division: the date the signature

Dean's approval

1. **Program vision**

Seekingcollege the sciencesTo be one of the leading higher education institutions inuniversity TikritIn the field of modern education and scientific research through its scientific, research and administrative activities, it also works to provide an integrated path for its students and professors to make them active and creative in serving the community in the fields of education.the sciencesSnake and its education.

2. **Program message**

Working on preparing and graduating pioneering scientific and leadership competencies in the sciencesAnd its sciences and literature, and in developing the knowledge base in the field of scientific research to serve the local, regional and international community, in addition to training and refining the minds of students scientifically and cognitively, emphasizing social and cultural values and responding to the requirements of the local market.

3. **Program objectives**

1. Embodying vision, mission and goalsuniversity TikritAnd applying the best educational practices with a focus on ensuring and enhancing quality and performance.

2. Preparing specialized cadres capable of serving the community and preparing for future specializations.

3. Disseminating the culture of human diversity in society, transferring knowledge and linguistic skills, writing academic research and creative scientific achievement through activities that focus on the student and the teacher.

4. The college seeks to conclude scientific and cultural cooperation agreements with similar colleges and departments in different colleges to achieve the best practices in the fields of education.

5. Focusing on the educational and moral aspects of all its members and spreading the spirit of dedication, tolerance, commitment and work to serve the nation.

6. Interest in intellectual and cultural development through openness to the experiences of other countries in the fields of Various sciences.

Focus on the educational and moral side of the student and instill a spirit of dedication, tolerance and commitment.

4. **Programmatic accreditation**

nothing

5. Other external influences

nothing

6. Program Structure									
comments * percentage		Study unit	Number of	Program Structure					
			courses						
Basic course		90	90	Institutional					

		Requirements
	Yes	College Requirements
	Yes	Department Requirements
	nothing	Summer training
		Other

* Notes may include whether the course is basic or optional.

7. Program Description										
Credit hours Course name Course code Year/Level										
	theoreti	statistics		2024-2025/						
	cal			thesecond						

8. Expected learning outcomes of the program	1
Knowledge	
	Informing students about the
	importance of
	theoriesStatistics, its uses and
	importance in society
Skills	
	Skill expansionAbility to
	perform statistical and graphical
	analysis
Values	
	Developing students' ability
	to share ideas
	Disclosing one's thoughts and
	feelingsTowards life matters,
	including the scientific material in
	statistics

9. **Teaching and learning strategies**

-Explanation of the scientific materialBy using colored pens, a board, and various educational tools.

2- Write a review paper for each.exampleSummarizes the most important ideas raised during the lectures.

3- Connect aExplanation and discussion through the previous lecture and the new lecture

10. **Evaluation methods**

Weekly, monthly, daily and end of year exams.

11. Facu	lty									
Faculty members										
Faculty prepara	ation	Special requirem any)	ents/skills (if	Specializat	ion	Academic Rank				
	angel			private	general					
	angel			Time series	mathem atics	Teacherassistant				

Professional development
Orientation of new faculty members
Professional development for faculty members

12. Acceptance Criteria

13. The most important sources of information about the program

Bristow, J. (Ed.). (2000). The Cambridge companion to Victorian poetry. Cambridge University Press

Cronin, R. (2012). Reading Victorian Poetry (Vol. 5). John Wiley & Sons.

14. Program development plan

A scientific study on the types of statistics, their divisions, and how to benefit from statistical methods in areas of daily life.

	Program Skills Chart														
Required learning outcomes of the program															
Valu	Values Skills Knowledge						Essential or optional?	Course name	Course code	Year/Level					
A4	A3	A2	A1	B4	B3	B2	B1	A4	A3	A2	A1				

						essential	statistics	2023-2024

Please tick the boxes corresponding to the individual learning outcomes of

• the programme being assessed.

Course Description Form

1. Course name:statistics	
2. Course code:	
3. Semester/Year: Annual	
Annual	
4. Date this description was prepared: / 2025/1/	/22
5. Available attendance forms:	
In-person only	
6. Number of study hours (total) / Number of u	nits (total):
78One hour per year.2One hour per week	
	· · · · · · · · · · · · · · · · · · ·
7. Name of the course administrator (if more th	an one name is mentioned)
The name: Mr. Zineb Hassan Ahmed Email:Zahr	ned@edu.tu.iq
8. Course objectives	
• 1- Providi	ng students with the skill
• of applicat	ion Statistics and its use in
•	ife
2 Skill ov	nansionStatistical analysis
3-clarificat	tion Most important Types
of statistic	s, methods and uses
9. Teaching and learning strategies	
1-Education Strategy	Strategy
The cooperative concept is blown away.	
2-Brainstorming teaching strategy.	
5-Education Strategy Notes Series	

10. Course	structure				
Evaluation	Learning	Name of the unit or	Required	Watches	The
method	method	topic	learning		week
	Explana	English Victor	outcomes	2hour	1
AFor	tion of	Poetrv	1-	2hour	2
weekly,	the		Providing	2hour	3
monthly	scientifi		students	2hour	4
montiny	с		with	2hour	5
, daily,	material		analysis	2hour	6
written	fromEx		skillsStati	2hour	7
and	planatio		sticsBy	2hour 2hour	8
end-of-	n on the		applyingT	2110ul 2hour	9 10
chu or	boardA		apprying I	2hour	10
year	nd give		ypes Allu	2hour 2hour	12
exams.	the		statistical	2hour	13
	most		methods	2hour	14
	importa		2-	2hour	15
	ntImpor		Informing		vacatio
	tant		students	2hour	16
	exampl		about the	2hour	17
	esA.		importanc	2hour	18
	2- Write		e of	2hour	19
	а		theories.st	2nour 2hour	19
	review		atistics	2110ul 2hour	20
	paper			2hour	$\frac{21}{22}$
	for			2hour	23
	each.Im			2hour	24
	portant			2hour	25
	exercise			2hour	26
	Summa			2hour	27
	rizes the			2hour	28
	most			2hour	29
	importa			2hour	30
	nt ideas				
	raised				
	during				
	the				
	lectures.				

		r		1		
	3-					
	Linking					
	ideasAn					
	d the					
	applicat					
	ions of					
	statistic					
	s that					
	are					
	usefulth					
	eStude					
	nts					
11. Course	e Evaluation			L	I	
distributionAs	follows: 25 ma	rks for monthly a	nd dail	y exams for the f	irst semester. 2	25 marks
for monthly and	d daily exams for	or the second sem	ester. 50) marks for final e	xams	
	1, 1,					
12. Learni	ng and teach	ng resources	1			
12. Learnin General Stati	ng and teachi stics Book	ng resources	Requi	red textbooks (me	thodology if a	ny)
12. Learni General Stati	ng and teachi stics Book	ng resources	Requir Main	red textbooks (me References (Sourc	thodology if an es)	ny)
12. Learnin General Stati	ng and teachi stics Book	ng resources	Requin Main Recon	red textbooks (me References (Sourc nmended supp	thodology if an res) orting book	ny)
12. Learnin General Stati	ng and teachi stics Book	ng resources	Requir Main Recon referen	red textbooks (me References (Sourc nmended supp nces (scientific jou	thodology if an res) orting book urnals, reports,	ny) as and etc.)
12. Learnin General Stati	ng and teachi stics Book	ng resources	Requir Main Recon referen	red textbooks (me References (Sourc nmended supp nces (scientific jou	thodology if an res) orting book urnals, reports,	ny) as and etc.)
12. Learnin General Stati	ng and teachi stics Book	ng resources	Requir Main Recon referen	red textbooks (me References (Sourc nmended supp nces (scientific jou	thodology if an res) orting book urnals, reports,	ny) ts and etc.)
12. Learnin General Stati	ng and teachi stics Book	ng resources	Requir Main I Recon referen	red textbooks (me References (Sourc nmended supp nces (scientific jou	thodology if an res) orting book urnals, reports,	ny) as and etc.)
12. Learnin General Stati	ng and teachi stics Book	ng resources	Requir Main Recon referen	red textbooks (me References (Sourc nmended supp nces (scientific jou	thodology if an res) orting book urnals, reports,	ny) as and etc.)
12. Learnin General Stati	ng and teachi stics Book	ng resources	Requir Main I Recon referen	red textbooks (me References (Sourc nmended supp nces (scientific jou	thodology if an res) orting book urnals, reports,	ny) as and etc.)
12. Learnin General Stati	ng and teachi stics Book	ng resources	Requir Main I Recon referen	red textbooks (me References (Sourc nmended supp nces (scientific jou	thodology if an res) orting book urnals, reports,	ny) as and etc.)
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12. Learnin General Stati	ng and teachi	ng resources	Requir Main I Recon referen	red textbooks (me References (Sourc nmended supp nces (scientific jou	thodology if an ees) orting book urnals, reports,	ny) is and etc.)
12. Learnin General Stati https://zlibran	ng and teachi stics Book	ng resources	Requir Main I Recon referen	red textbooks (me References (Sourc nmended supp nces (scientific jou	thodology if an ees) orting book urnals, reports,	ny) as and etc.)
12. Learnin General Stati https://zlibran	ng and teachi stics Book	ng resources	Requir Main I Recon referen	red textbooks (me References (Sourc nmended supp nces (scientific jou	thodology if an res) orting book urnals, reports, rebsites	ny) ts and etc.)
12. Learnin General Stati https://zlibran https://www.n	ng and teachi stics Book	ng resources	Requir Main I Recon referen	red textbooks (me References (Sourc nmended supp nces (scientific jou	thodology if an res) orting book urnals, reports,	ny) is and etc.)

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



Academic Program and Course Description Guide

2024

Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

<u>Academic Program Description</u>: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

<u>Course Description</u>: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

<u>Program Vision</u>: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

<u>Program Mission:</u> Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

<u>Curriculum Structure:</u> All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must

determine the learning outcomes of each course in a way that achieves the objectives of the program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extracurricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: Tikrit Faculty/Institute: Science college Scientific Department: Applied geology Academic or Professional Program Name: Bachelor in Applied geology

Final Certificate Name: Bachelor in Applied geology Academic System: first semester course. Description Preparation Date: 1/10/2024 File Completion Date: 3/11/2024

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

Approval of the Dean

1. Program Vision

The College of Science aims to be one of the leading higher education institutions at Tikrit University in the field of modern education and scientific research through its scientific, research, and administrative activities. It also works to provide an integrated pathway for its students and faculty members, enabling them to become active and creative contributors to serving society in the fields of natural sciences (biology, chemistry, physics, and geology) and their teaching.

2. Program Mission

Working to prepare and graduate leading scientific and leadership competencies in natural sciences, scientific research, and their ethics, as well as advancing the knowledge base in scientific research to serve the local, regional, and international community. Additionally, it focuses on training and honing students' minds scientifically and intellectually, emphasizing social and cultural values, and responding to the demands of the local market.

3. Program Objectives

- 1. Embodying the vision, mission, and goals of Tikrit University, while applying best educational practices with a focus on ensuring and enhancing quality and performance.
- 2. Preparing specialized cadres capable of serving society and equipping them for future specializations.
- 3. Promoting a culture of human diversity in society, transferring knowledge and scientific skills, writing academic research, and achieving creative scientific accomplishments through student- and faculty-centered activities.
- 4. The College seeks to establish scientific and cultural cooperation agreements with peer colleges and departments across various institutions to achieve best practices in education, learning, and translation.
- 5. Emphasizing the educational and ethical aspects for all its members, fostering a spirit of dedication, tolerance, commitment, and service to the nation.
- 6. Focusing on intellectual and cultural development by engaging with the experiences of other countries in the fields of natural sciences and scientific research across its various disciplines.

4. Program Accreditation

Nothing

5. Other external influences

nothing

6. Program Structure

Program Structure	Number of	Credit hours	Percentage	Reviews*
i rogram Stracture	Courses	ci cuit nours	i ci centage	Reviews
Institution	2	3		Core course
Requirements	_	•		
College	Yes			
Requirements	- •••			
Department	Yes			
Requirements	- •••			
Summer Training	Yes			
Other				

* This can include notes whether the course is basic or optional.

7. Program Description							
Year/Level	Course Code	Course Name		Credit Hours			
Forth grade		Engineering geology	theoretical	practical			
				Yes			

8. Expected learning outcomes of the program

Knowledge

1- After receiving this material, the student can evaluate the engineering properties of soil for multiple engineering purposes.

2- Evaluating the engineering properties of rocks for various engineering purposes such

as buildings, foundations, bridges, tunnels, etc.

3- Evaluating the stability of rock slopes.

4- Evaluation of geotechnical properties.

5- Engineering classification of soil and rocks

Skills

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

1-He can transfer information to others.

2- He can convey and make students understand some difficult information.

3- He can solve problems related to the course,

4- Thinking with fellow students in small groups

Ethics

1- Reception

At this level, the student shows interest in the subject of engineering geology and its study, and the learning outcomes range from simple awareness to interest, to acceptance, then innovation and creativity.

2- Response

Here the student's level of interest goes beyond participation, so that he takes a position on the subject of study.

3- Value judgment

Here the student moves to a higher level by giving value to the subject, a value that has an impact on the student's personality. 4- Value organization

It means building a value system for the student based on comparison, linking, and grouping, so that the learner forms his own concepts related to value.

5- Normalization or labeling with value

It is the highest level where value is formed as a characteristic that distinguishes the student from others and influences his behavior, through which he can develop his lifestyle.

9. Teaching and Learning Strategies

- 1- Deliver lectures in-person after publishing them on the class's Classroom website.
- 2- Present images and diagrams related to the lecture using PowerPoint.
- 3- Utilize simulation programs to explain the lecture in a more scientific and clear manner.
- 4- Use 3D educational videos through platforms like YouTube to help students visualize devices and their structures effectively.

10. Evaluation methods

- 1- Reports
- 2- Daily quizzes
- **3-** Oral questions during lecture time
- 4- Brainstorming

5- End-of-semester exams

11.Faculty									
Faculty Me	Faculty Members								
Academic Rank	Specialization		Special Requirem (if applicable)	nents/Skills	Number of the teaching staff				
	General	Special			Staff	Lecturer			
Assistant teacher	Applied geology	Engineering geology				Lecturer			

Professional Development

Mentoring new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

13. The most important sources of information about the program

- 1- Systematic engineering geology book
- 2- Book of practical applications in engineering geology

14. Program Development Plan

- 1- Using the latest sources and including topics that are consistent with modernity, the requirements of scientific and practical life, and what scientists have reached, on an ongoing basis.
- 2- Introducing advanced scientific equipment into the engineering geology subject to carry out scientific experiments in the laboratory, which enhances the student's ability to understand the subject.



	Program Skills Outline														
				Required program Learning outcomes											
Year/Level Course Code		Course Course Name I Code Course Name I	Irse Course Name Basic or ode optional	Knowledge		Skills		Ethics							
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	С3	C4
2024-2025		Engineering geology	Basic												

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

1. Course Name: Engineering geology 2. Course Code: 30 hours per academic term, 3 hours weekly. 3. Semester / Year: First Semester 4. Description Preparation Date: 3/11/2024 5. Available Attendance Forms: Attendance 6. Number of Credit Hours (Total) / Number of Units (Total) 30 hours per academic term, 3 hours weekly. 7. Course administrator's name (mention all, if more than one name) Name: Laith Ikhlas Salah Email: laith.ikhlas.salah@tu.edu.ig 8. Course Objectives 1- After receiving this material, the student can evaluate the engineering properties of soil for multi engineering purposes. 2- Evaluating the engineering properties of rocks for various engineering purposes such as building foundations, bridges, tunnels, etc. **3-** Evaluating the stability of rock slopes. 4- Evaluation of geotechnical properties. 5- Engineering classification of soil and rocks **Teaching and Learning Strategies Cooperative Concept Planning Teaching Strategy** Strategy 1-2- Brainstorming Teaching Strategy **3- Observation Series Teaching Strategy**

9. Co	O. Course Structure									
Week	Hours	Required Learning Outcomes	Unit or subject name	Lear ning meth od	Evaluation method					
1-	3hour	A general introductory lecture on engineering Tests.								
2-	3hour	Moisture content Test								

3-	3hour	Sieve (mechanical) analysis Test
4-	3hour	Wet analysis test (hydrometer)
5-	3hour	Test of the specific gravity of the soil
6	3hour	Test soil permeation limits
7	3hour	Monthly exam
8	3hour	Direct soil shear Test
9	3hour	Consolidation Test
10	3hour	Uniaxial compressive strength Test
11	3hour	Triaxial compressive strength test
12	3hour	Point load Test
13	3hour	Test of mechanical corrosion in rocks
14	3hour	(Los Angeles)
15	3hour	Second exam + pursuits
10.Cc	ourse Eva	luation
30 Marl	ks for The	ory, 15 Marks for Practical Work, and 5 Marks for Classroom Activities.
11.Le	arning and together a	nd Teaching Resources
ĸequireo	u lextbook	s (curricular books, 11 ally) Engineering geology book

Main references (sources)	Book of practical applications engineering geology
Recommended books and references (scientific journals, reports)	
Electronic References, Websites	Iraqi Virtual Electronic Library (IVEL). Internet resources relevant to the subject matter.

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



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Academic Program Description Form

University Name: ...Tikrit..... Faculty/Institute:College of Science.... Scientific Department:Applied Geology Academic or Professional Program Name: ..Geology..... Final Certificate Name:Bachelor in Geology..... Academic System: ...Semsters..... Description Preparation Date: 5-10-2024 File Completion Date: 14-5-2025

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

Approval of the Dean

1. Program Vision

The Department of Geosciences adopts as its goal to become a nationally recognized leader in integrating research excellence and education in applied geology. In research, we strive to sustain and grow a resource platform that continues to enable our scientists to contribute at high levels to internationally significant research problems in geology. In education, we strive to provide students with opportunities to discover and develop relevant knowledge and skill sets that will enable them to achieve their professional goals. We believe that creative integration of research with education will promote excellence in both. We will create undergraduate programs that attract students from across nation and prepares them for professional careers, and we will become a significant component of foundational education at Tikrit University.

2. Program Mission

The Department of Applied Geology at Tikrit University creates and disseminates knowledge about Earth's processes and properties for students, scientists, and the public to help create a scientifically informed community. We provide high quality educational opportunities for students seeking PhD, MS, and BS degrees in core strength areas within Applied Geology, and bring earth science principles to the foundational education mission of the university. In all programs, we enable students to discover and develop relevant knowledge and skillsets so that they can achieve their professional goals and pursue solutions to resource and environmental challenges facing the state, nation, and world. We welcome motivated individuals who are passionate about science, value diversity and tolerance, and believe in wise stewardship of our planet through critical thinking and dialogue.

3. **Program Objectives**

- 1. Prepare students for professional careers in natural resources or environmental sciences, graduate school for advanced studies, or any future where scientific thinking is used. The four degree track options are geology, geophysics, hydrology, and secondary education.
- 2. Prepare students for successful scientific, technical or management careers in the geosciences or related fields
- 3. Provide employers with a well-educated workforce that is ready and able to perform valuable scientific, technical or managerial services immediately after graduation
- 4. Encourage the growth of knowledge-based industry and stimulate economic growth in Iraq.
- 5. Acquire advanced knowledge of geology and earth system science in addition to their major area of study area
- 6. Acquire advanced knowledge of hydrology and earth system science in addition to their major area of study area.

4. Program Accreditation

No

5. Other external influences

No

6. Program Structure

Program Structure	Number of	Credit hours	Percentage	Reviews *
	Courses			
Institution				
Requirements				
College Requirements				
Department				
Requirements				
Summer Training	Yes			
Other				

* This can include notes whether the course is basic or optional.

7. Program Description								
Year/Level	Course Code	Course Name	(Credit Hours				
			theoretical	practical				
First		Crystallography	2	2				

8. Expected learning outcomes of the program

Knowledge

- 1. Recognizing the crystalline materials from the non-crystalline materials.
- 2. Recognizing the different shapes of the mineral crystals.
- 3. Understand the formation mechanism of these shapes .
- 4. Understanding the formation of some phenomenon in minerals such as twinning and cleavage.
- 5. This course is a basic for other topics such as mineralogy.

Skills

Identify the crystal systems of the minerals	
Speculation the minerals type through crystal	
system	
Ethics	

9. Teaching and Learning Strategies

- 1. Class lecture
- 2. Laboratory
- 3. Tutorial
- 5. Assignments

10. Evaluation methods

Examinations (Oral and written).

11.Faculty								
Faculty Members								
Academic Rank	Specializatio	n	Special Requirements/Skills (if applicable)		Number of the teaching staff			
	General	Special			Staff	Lecturer		
Professor	Geology	Geochemistry			1			
Assistant Professor	Geology	Structural Geology			1			

Professional Development Mentoring new faculty members

Professional development of faculty members

12. Acceptance Criterion

The admission is subjected to Ministry of Higher Education and Scientific Research rules.

13. The most important sources of information about the program

Journals, Review articles, Books

14.Program Development Plan We plan to have a new devices for analysis such as XRD, SEM; in addition to typical samples for the crystal systems.
	Program Skills Outline														
						Requ	Required program Learning outcomes								
Year/Level	Course Course Code Name	Course Name	Course Basic or Name optional	Knov	Knowledge		Skills			Ethics					
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	С3	C4
First		Crystallog raphy	Basic	~					\checkmark			~			

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

	_
1. Cours	e Name:
Crystallogra	phy
2. Cours	e Code:
3. Seme	ster / Year:
Semester	
4. Descr	iption Preparation Date:
14-2-2024	
5. Availa	able Attendance Forms:
Atten	dance only
6. Numb	er of Credit Hours (Total) / Number of Units (Total)
60 hc	ours/ 4 hours per week
7. Cours	se administrator's name (mention all, if more than one name)
Name	: Mohamed W. Alkhafaji
Email	: <u>mohamedajeel@tu.edu.iq</u>
Ayed	H. Ward
Ayed.	<u>ward@tu.edu.iq</u>
8. Cours	e Objectives
Course Objecti	ves 1. To understand how the crystalline materials form.
	2. To understand the internal structure of the geological
	materials.
	3. To understand the factors controlling the forms and sha
	of the minerals.
	4 To interpret to the different shapes and forms of the
	alements
	- To an denote of the formation of alcone a training and
	5. To understand the formation of cleavage, twinning and other structures in minerals.
9. Teach	ing and Learning Strategies
Strategy	
	1. Class lecture

2. Laboratory

5. Assignments

3. Quiz 4. Tutorial

9

forms and shapes

10. Co	ourse St	ructure							
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method				
1	4	Definition of crystal crystallization, eleme of crystal	Introduction	Class Lecture	Oral or written examina				
2	4	Types of systems	Crystal systems	Class Lecture	Oral or written examina				
3	4	Elements of symme	Crystal symmetry	Class Lecture	Oral or written examina				
4	4	Calculation the Wei parameters	Axial ratios and Intercer	Class Lecture	Oral or written examina				
5	4	Calculation Miller indices	Miller indices	Class Lecture	Oral or written examina				
6	4	Evaluation	Mid-term Exam	Class Lecture	Oral or written examina				
7	4	Types of forms	Crystal form and habita		Written examination				
8	4	Calculation the zor number and its applications	Zone	Class Lecture	Oral or written examina				
9	4	Crystal drawing an crystal projection	Crystallographic projectic	Class Lecture	Oral or written examina				
10	4	Crystal classes of triclinic, monoclini orthorhombic syster	Crystal classes-1	Class Lecture	Oral or written examina				
11	4	Crystal classes of tetragonal, hexagon and cubic systems	Crystal classes-2	Class Lecture	Oral or written examina				
12	4	Understanding the internal structure of crystal	Internal structure of the crystals	Class Lecture	Oral or written examina				
13	4	Types of Bravais un cells	Bravais lattices	Class Lecture	Oral or written examina				
14	4	Formation and types twinning	Twinning	Class Lecture	Oral or written examina				
15	4	Principles and application of XED crystallography	XRD in Crystallography	Class Lecture	Oral or written examina				
11.Co	ourse Ev	valuation							
Daily p	reparatio	on 10							
Oral ex	aminatio	n10							
Reports	510 . Evonin	ation 10							
Practic	i Examin	ation10							
Final Examination50									
12.Learning and Teaching Resources									
Required textbooks (curricular books, Crystallography									
Main re	ferences	(sources)	Introduc	Introduction to Mineralogy					
Recom	nended	books and referen	ices Journal	Iournal of Mineralogy					
(scientit	fic journa	ls, reports)	Geocher	Geochemica et Cosmochemica acta					
Electron	nic Refer	ences, Websites	https://www	https://www.sciencedirect.com/topics/chemistry/geochemi					



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



Academic Program and Course Description Guide

2024

Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

<u>Academic Program Description</u>: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

<u>Course Description</u>: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

<u>Program Vision</u>: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

<u>Program Mission:</u> Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

<u>**Curriculum Structure:**</u> All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must

determine the learning outcomes of each course in a way that achieves the objectives of the program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extracurricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: ...Tikrit..... Faculty/Institute:College of Science.... Scientific Department:Applied Geology Academic or Professional Program Name: ..Geology..... Final Certificate Name:Bachelor in Geology..... Academic System: ...Semsters..... Description Preparation Date: 5-10-2024 File Completion Date: 14-5-2025

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

Approval of the Dean

1. Program Vision

The Department of Geosciences adopts as its goal to become a nationally recognized leader in integrating research excellence and education in applied geology. In research, we strive to sustain and grow a resource platform that continues to enable our scientists to contribute at high levels to internationally significant research problems in geology. In education, we strive to provide students with opportunities to discover and develop relevant knowledge and skill sets that will enable them to achieve their professional goals. We believe that creative integration of research with education will promote excellence in both. We will create undergraduate programs that attract students from across nation and prepares them for professional careers, and we will become a significant component of foundational education at Tikrit University.

2. Program Mission

The Department of Applied Geology at Tikrit University creates and disseminates knowledge about Earth's processes and properties for students, scientists, and the public to help create a scientifically informed community. We provide high quality educational opportunities for students seeking PhD, MS, and BS degrees in core strength areas within Applied Geology, and bring earth science principles to the foundational education mission of the university. In all programs, we enable students to discover and develop relevant knowledge and skillsets so that they can achieve their professional goals and pursue solutions to resource and environmental challenges facing the state, nation, and world. We welcome motivated individuals who are passionate about science, value diversity and tolerance, and believe in wise stewardship of our planet through critical thinking and dialogue.

3. **Program Objectives**

- 1. Prepare students for professional careers in natural resources or environmental sciences, graduate school for advanced studies, or any future where scientific thinking is used. The four degree track options are geology, geophysics, hydrology, and secondary education.
- 2. Prepare students for successful scientific, technical or management careers in the geosciences or related fields
- 3. Provide employers with a well-educated workforce that is ready and able to perform valuable scientific, technical or managerial services immediately after graduation
- 4. Encourage the growth of knowledge-based industry and stimulate economic growth in Iraq.
- 5. Acquire advanced knowledge of geology and earth system science in addition to their major area of study area
- 6. Acquire advanced knowledge of hydrology and earth system science in addition to their major area of study area.

4. Program Accreditation

No

5. Other external influences

No

6. Program Structure

Program Structure	Number of	Credit hours	Percentage	Reviews *
	Courses			
Institution				
Requirements				
College Requirements				
Department				
Requirements				
Summer Training	Yes			
Other				

* This can include notes whether the course is basic or optional.

7. Program Description							
Year/Level	Course Code	Course Name	(Credit Hours			
			theoretical	practical			
Third Geochemistry 2 2							

8. Expected learning outcomes of the program

Knowledge

- 1. Recognizing the distribution of elements in the earth zones.
- 2. Describe the composition of the Earth's main geochemical reservoirs
- 3. Understand the behavior of elements in the geological systems.
- 4. Understanding the main minerals and elemental constituents of the earth zones.
- 5. Understanding the variation in the structure of the earth from core to crust.
- 6. Understanding the factors controlling the variations in rock types.
- 7. Explain fractionation of stable isotopes and how such data can be used to understand various geochemical and geobiological processes.
- 8. Describe the use of geochronology to date magmatic and metamorphic events
- 9. Describe how radiogenic isotope signatures can be used to trace the source of minerals, rocks and fluids

Skills	
Identify and classify common rock forming minerals.	
Identify the most common	

elements in the Earth's crust and their order of abundance	
Ethics	

9. Teaching and Learning Strategies

- 1. Class lecture
- 2. Laboratory
- 3. Tutorial
- 5. Assignments

10. Evaluation methods

Examinations (Oral and written), and quiz

11.Faculty							
Faculty Members							
Academic Rank	Specialization		Special Requirements (if applicable)	s/Skills)	Number of the teaching staff		
	General	Special			Staff	Lecturer	
Professor	Geology	Geochemistry			1		
Assistant Prof.	Geology	Geochemistry			1		

Professional Development

Mentoring new faculty members

Professional development of faculty members

12. Acceptance Criterion

The admission is subjected to Ministry of Higher Education and Scientific Research rules.

13. The most important sources of information about the program

Journals, Review articles, Books

14.Program Development Plan

We plan to have a new devices for analysis such as XRD, XRF, and ICP-MS

	Program Skills Outline														
		Required program Learning outcomes													
Year/Level	CourseCourseBasCodeNameopti		Basic or optional	Knowledge S		Skills			Ethics	Ethics					
			_	A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	С3	C4
															ļ
Third		Geochemi stry	Basic		\checkmark			√				\checkmark			

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

1. Course Name:

Geochemistry

2. Course Code:

3. Semester / Year:

Semester

4. Description Preparation Date:

14-2-2024

- 5. Available Attendance Forms:
 - Attendance only
- 6. Number of Credit Hours (Total) / Number of Units (Total)
 - 60hours/ 4 hours per week

7. Course administrator's name (mention all, if more than one name) Name: Mohamed W. Alkhafaji

- Email: mohamedajeel@tu.edu.iq
- Tahir Mahmood Taha
- Tahir.mahmood@tu.edu.iq

8. Course Objectives

Course Objectives

The course aims to give a broad introduction into geochemical principles and research practices used understand processes operating on, in and betw Earth's various geochemical and geobiological syste (mantle, crust, oceans, atmosphere), and the role of in such processes.

9. Teaching and Learning Strategies

Strategy

- 1. Class lecture
- 2. Laboratory
- 3. Quiz
- 4. Tutorial
- 5. Assignments

10. Course Structure

10. 0									
Week	Hours	Required	Unit or subject	Learning	Evaluation				
		Learning	name	method	method				
		Outcomes							
		Getting basic	Introduction to Rock	Class Lecture	Oral or written examina				
1	4	information about at	Geochemistry						
		structure							
2	1	Getting informatio	Solar system	Class Lecture	Oral or written examina				
Z	4	about the compositi							

		of the solar system						
		The main	Sources of information	Class Lecture	Oral or written examina			
2	1	information again	earth's interior	Cluss Lecture				
3	4	information source						
		Composition	Mataaritaa	Class Lasture	Onel on written exemine			
		classification and	Meteorites	Class Lecture	Oral or written examina			
4	4	importance of						
		meteorites						
	4	The composition of	Earth crust	Class Lecture	Oral or written examina			
5	4	earth's crust						
6	1	The composition of	Upper mantle	Class Lecture	Oral or written examina			
0	4	earth's upper mantl						
7	4	Evaluation	Mid-term Examinatio	Class Lecture	Oral or written examina			
8		The composition of	Transitional zone and lo	Class Lecture	Oral or written examina			
	4	earth's transition zo	mantle					
		and lower mantle	E sult serve	Classification				
9	4	I ne composition of	Earth's core	Class Lecture	Oral or written examina			
10		Theories about t	Origin of earth	Class Lecture	Oral or written examina			
10	4	origin of earth	origin of curtin					
11		The geochemistry	Hydrosphere	Class Lecture	Oral or written examina			
11	4	the hydrographer	rryurosphere	Cluss Lecture	of all of written examina			
10	The geochemistry		Atmoorhana	Class Lecture	Oral or written examina			
12	4	The geochemistry	Atmosphere	Class Lecture				
10		Composition of th	0 1 1	Class Lasture	Onel on written exemine			
13	1	organic matter and t	Organic geochemisi	Class Lecture	Oral of written examina			
	4	source rock evaluati						
14		The importance of	Radiogenic isotope	Class Lecture	Oral or written exami			
TT	4	radiogenic isotor	ruurogenie isotep.					
	-	in Geology						
15		The importance of	The importance of	Class Lecture	Oral or written examina			
15	4	stable isotopes i	stable isotopes in					
	-	Geology	Geology					
11 C	ourse Fr	valuation						
Deilerm								
Daily p	reparatio	011 10 						
Oralex		n10						
Reports	S10							
Writter	i Examin	lation10						
Practical10								
Final Examination50								
12.Learning and Teaching Resources								
Require	m M. Al-Dabbagh							
any)								
Main re	ferences	(sources)	Introd	uction to Geoc	hemistry. by Wh			
			2017					
Decer	nondad	hooles and referre	2017					
Kecomr	nended	books and referen	Journa	li of Geochemist	ry			
(scientii	ic journa	us, reports)	1.44		onios/abanaista-/asa-ataani			
Electron	Electronic References, Websites <u>https://www.sciencedirect.com/topics/chemistry/geocl</u>							



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



Academic Program and Course Description Guide

2025

Introduction:

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Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must

determine the learning outcomes of each course in a way that achieves the objectives of the program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extracurricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: Tikrit Faculty/Institute: Science college Scientific Department: Applied geology Academic or Professional Program Name: Bachelor in Applied geology

Final Certificate Name: Bachelor in Applied geology Academic System: first semester course. Description Preparation Date: 1/9/2024 File Completion Date: 1/9/2024

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

Approval of the Dean

1. Program Vision

The College of Science aims to be one of the leading higher education institutions at Tikrit University in the field of modern education and scientific research through its scientific, research, and administrative activities. It also works to provide an integrated pathway for its students and faculty members, enabling them to become active and creative contributors to serving society in the fields of natural sciences (biology, chemistry, physics, and geology) and their teaching.

2. Program Mission

Working to prepare and graduate leading scientific and leadership competencies in natural sciences, scientific research, and their ethics, as well as advancing the knowledge base in scientific research to serve the local, regional, and international community. Additionally, it focuses on training and honing students' minds scientifically and intellectually, emphasizing social and cultural values, and responding to the demands of the local market.

3. Program Objectives

- 1. Embodying the vision, mission, and goals of Tikrit University, while applying best educational practices with a focus on ensuring and enhancing quality and performance.
- 2. Preparing specialized cadres capable of serving society and equipping them for future specializations.
- 3. Promoting a culture of human diversity in society, transferring knowledge and scientific skills, writing academic research, and achieving creative scientific accomplishments through student- and faculty-centered activities.
- 4. The College seeks to establish scientific and cultural cooperation agreements with peer colleges and departments across various institutions to achieve best practices in education, learning, and translation.
- 5. Emphasizing the educational and ethical aspects for all its members, fostering a spirit of dedication, tolerance, commitment, and service to the nation.
- 6. Focusing on intellectual and cultural development by engaging with the experiences of other countries in the fields of natural sciences and scientific research across its various disciplines.

4. Program Accreditation

Nothing

5. Other external influences

nothing

6. Program Structure

Program Structure	Number of	Credit hours	Percentage	Reviews*
-	Courses		_	
Institution	2	3		Core course
Requirements				
College	Yes			
Requirements				
Department	Yes			
Requirements				
Summer Training	Yes			
Other				

* This can include notes whether the course is basic or optional.

7. Program Description								
Year/Level	Course Code	Course Name	Credit Hours					
Third grade		Hydrogeology	theoretical	practical				
			Yes	Yes				

8. Expected learning outcomes of the program

Knowledge

- What are groundwater and where are they found?
- How are they stored within the Earth's layers?
- What are the types of reservoirs containing water?
- Understanding the hydraulic properties of reservoirs.
- Explaining the importance of this science in reality and how to preserve groundwater.
- Understanding how to calculate the concentrations of ions present in water.

Skills

General and Transferable Skills (Other Skills Related to Employability and Personal Development):

- **1.** After completing this course, the student will be able to identify groundwater locations and how to manage different types of reservoirs.
- 2. Learn how to determine the hydraulic properties of reservoirs.
- 3. Evaluate the efficiency of reservoirs over the long term.
- 4. Assess the suitability of water for various uses.

Ethics

1- **Reception**:

At this level, the student shows interest in the subject of groundwater hydrology and its study. Learning outcomes range from basic awareness to interest, leading to acceptance, innovation, and creativity.

2- Response:

Here, the student's interest progresses to active participation, adopting a stance toward the subject matter.

3- Valuation:

The student advances to a higher level by assigning value to the topic, making it impactful on their personality.

4- Value Organization:

This involves constructing a value system for the student based on comparison, connection, and synthesis, enabling them to develop their own concepts related to the value.

5- Value Internalization (Characterization):

This is the highest level, where the value becomes a defining trait of the student, influencing their behavior and allowing them to develop a lifestyle shaped by this value.

9. Teaching and Learning Strategies

- 1- Deliver lectures in-person after publishing them on the class's **Classroom** website.
- 2- Present images and diagrams related to the lecture using **PowerPoint**.
- 3- Utilize simulation programs to explain the lecture in a more scientific and clear manner.

4- Use 3D educational videos through platforms like **YouTube** to help students visualize devices and their structures effectively.

10. Evaluation methods

- 1- Reports
- 2- Daily quizzes
- 3- Oral questions during lecture time
- 4- Brainstorming
- 5- End-of-semester exams

11.Faculty									
Faculty Members									
Academic Rank	Specialization		Special Requiren (if applicable)	nents/Skills	Number of the teaching staff				
	General	Special			Staff	Lecturer			
Lecturer	Applied geology	Hydro- sediment				Lecturer			

Professional Development

Mentoring new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

13. The most important sources of information about the program							
1-	1- Groundwater Hydrology						
2-	Todd's Groundwater Hydrology						
3-	Fetter's Applied Hydrogeology						
4-	Basic Groundwater Hydrology						

14.Program Development Plan

- 1- Incorporating the latest resources and continuously updating topics to align with modern advancements, scientific discoveries, and the requirements of academic and professional life.
- 2- Introducing advanced scientific instruments in groundwater hydrology to conduct laboratory experiments, enhancing students' understanding of the subject.

	Program Skills Outline														
				Required program Learning outcomes											
Year/Level	Course Course Na Code	Course Name	Course Name Basic or optional	Knowledge		Skills		Ethics							
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C 3	C4
2023-2024		Hydrgeology and hydrochemistry	Basic												
															ļ

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

1. Course Name:

Hydrogeology and hydrochemistry

2. Course Code:

30 hours per academic term, 3 hours weekly.

3. Semester / Year:

First Semester

4. Description Preparation Date:

1/2/2024

5. Available Attendance Forms: Attendance

6. Number of Credit Hours (Total) / Number of Units (Total)

30 hours per academic term, 3 hours weekly.

7. Course administrator's name (mention all, if more than one name)
 Name: Sabbar Abdullah Salih
 Name: ektifa taha abdulqader
 Email: ektifa.taha@tu.edu.iq
 Name: Nawfel Hassan

8. Course Objectives

Course Objectives

- 1- General and Transferable Skills (Other Skills Related to Employability and Personal Development):
- 2- After completing this course, the student will be able to identify groundwater locations and how to manage different types of reservoirs.
- 3- Learn how to determine the hydraulic properties of reservoirs.
- 4- Evaluate the efficiency of reservoirs over the long term.
- 5- Assess the suitability of water for various uses

Teaching	g and Learning Strategies
Strategy	1- Cooperative Concept Planning Teaching Strategy
	2- Brainstorming Teaching Strategy
	3- Observation Series Teaching Strategy

9. Course Structure									
Week	Hours	Required Learning Outcomes	Unit or subject name	Lear ning meth od	Evaluation method				

[· · · · · · · · · · · · · · · · · · ·	 	
1-		3hour	Groundwater and Its Origin, Fresh		
-			Groundwater:		
2-		3hour	 Definition and sources of 		
			groundwater.		
	3-	3hour	 Characteristics of fresh 		
			groundwater.		
	4-	3hour	Porosity, Effective Porosity, and		
			Specific Yield:		
	-	21	Understanding porosity and its		
	5-	3hour	effective role in groundwater		
			storage.		
	\mathbf{c}	2h avre	Specific yield as a measure of		
	6	3nour	Water release from soll or rock.		
			Analysis of normoshility		
	7	2h au m	• Analysis of permeability,		
	/	Shour	coofficient		
			Types of Deservoirs and Aquifers		
			Confined and unconfined		
			• Commed and uncommed		
			Aquiters.		
	8	3hour			
	0	Shou	Saltwater Intrusion and Related		
			Phenomena:		
			Saltwater intrusion and its		
			impact.		
	9	3hour	 Concepts of cone of depression, 		
			gaining, and losing streams.		
			Bank Storage and Hydraulic		
			Conductivity Calculation:		
			• The process of bank storage.		
			Methods for determining		
			hydraulic conductivity.		
			Midterm Exam:		
	10	3hour	 Topics up to hydraulic 		
			conductivity.		
	11	3hour	Groundwater Movement and		
			Gradients:		
			 Vertical and horizontal 		
			hydraulic gradients.		
			Types of flow and flow		

		networks.				
12	3hour	Pump Testing Methods:				
		• Theis method for dra	awdown			
		analysis.				
		Theis recovery meth	od and			
10	21	Jacob's method.				
13	3hour	Hydrochemistry of Water:	lita			
		• water chemistry and significance				
		 Methods of water and 	alvsis and			
		determining its suita	bility for			
		various uses.				
14	3hour	Second Exam + Coursewor	k k			
15	2hour	Accossmonts				
15	Shoul	 Tonics related to 				
		hydrochemistry and	analysis			
		techniques.				
10.Co	ourse Eva	aluation				
30 Mar	ks for The	ory, 15 Marks for Practical Work, a	and 5 Marks for Classroom Activities.			
Require	d textbook	rs (curricular books, if any)	Hydrology of Groundwater			
Main re	ferences (s	sources)	Basic Groundwater Hydrology			
			Todd's Groundwater Hydrology			
Recommended books and references (scientific		ooks and references (scientific	Fetter's Applied Hydrogeology			
journals	, reports)				
Electror	nic Referer	nces, Websites	Iraqi Virtual Electronic Library			
			(IVEL). Internet resources relevant to			
			the subject matter.			

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



Academic Program and Course Description Guide

2025

Introduction:

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The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

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In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

<u>Academic Program Description</u>: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

<u>Course Description</u>: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

<u>Program Vision</u>: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

<u>Program Mission:</u> Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

<u>Curriculum Structure:</u> All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must

determine the learning outcomes of each course in a way that achieves the objectives of the program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extracurricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: Tikrit Faculty/Institute: Science college Scientific Department: Applied geology Academic or Professional Program Name: Bachelor in Applied geology

Final Certificate Name: Bachelor in Applied geology Academic System: first semester course. Description Preparation Date: 2/9/2024 File Completion Date: 2/2/2024

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

Approval of the Dean

1. Program Vision

The College of Science aims to be one of the leading higher education institutions at Tikrit University in the field of modern education and scientific research through its scientific, research, and administrative activities. It also works to provide an integrated pathway for its students and faculty members, enabling them to become active and creative contributors to serving society in the fields of natural sciences (biology, chemistry, physics, and geology) and their teaching.

2. Program Mission

Working to prepare and graduate leading scientific and leadership competencies in natural sciences, scientific research, and their ethics, as well as advancing the knowledge base in scientific research to serve the local, regional, and international community. Additionally, it focuses on training and honing students' minds scientifically and intellectually, emphasizing social and cultural values, and responding to the demands of the local market.

3. Program Objectives

- 1. Embodying the vision, mission, and goals of Tikrit University, while applying best educational practices with a focus on ensuring and enhancing quality and performance.
- 2. Preparing specialized cadres capable of serving society and equipping them for future specializations.
- 3. Promoting a culture of human diversity in society, transferring knowledge and scientific skills, writing academic research, and achieving creative scientific accomplishments through student- and faculty-centered activities.
- 4. The College seeks to establish scientific and cultural cooperation agreements with peer colleges and departments across various institutions to achieve best practices in education, learning, and translation.
- 5. Emphasizing the educational and ethical aspects for all its members, fostering a spirit of dedication, tolerance, commitment, and service to the nation.
- 6. Focusing on intellectual and cultural development by engaging with the experiences of other countries in the fields of natural sciences and scientific research across its various disciplines.

4. Program Accreditation

No

5. Other external influences

No

6. Program Structure								
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*				
Institution Requirements	2	3		Core course				
College Requirements	Yes							
Department Requirements	Yes							
Summer Training	Yes							
Other								

* This can include notes whether the course is basic or optional.

7. Program Description								
Year/Level	Course Code	Course Name	Credit Hours					
Third grade		Engineering hydrology	theoretical	practical				
			Yes	Yes				

8. Expected learning outcomes of the program

Knowledge

• After completing this course, the student will be able to estimate the amount of water entering and exiting a surface water system.

- Learn how to determine water velocity and depth, and how to calculate discharge in rivers.
- Identify the amount of water lost and compare it with the water entering the system.
- Gain the ability to estimate missing rainfall data at meteorological stations using data from nearby stations.

Skills

eneral and Transferable Skills (Other skills related to employability and personal development):

- 1 Ability to convey information to others effectively.
- 2 Ability to explain and clarify complex information to students.
- 3 Proficiency in solving problems related to the course material.
- 4 Collaborative thinking with fellow students through small group discussions.

Ethics

1- **Reception:**

At this level, the student shows interest in the subject of groundwater hydrology and its study. Learning outcomes range from basic awareness to interest, leading to acceptance, innovation, and creativity.

2- Response:

Here, the student's interest progresses to active participation, adopting a stance toward the subject matter.

3- Valuation:

The student advances to a higher level by assigning value to the topic, making it impactful on their personality.

4- Value Organization:

This involves constructing a value system for the student based on comparison, connection, and synthesis, enabling them to develop their own concepts related to the value.

5- Value Internalization (Characterization):

This is the highest level, where the value becomes a defining trait of the student, influencing their behavior and allowing them to develop a lifestyle shaped by this value.

9. Teaching and Learning Strategies

- 1- Deliver lectures in-person after publishing them on the class's **Classroom** website.
- 2- Present images and diagrams related to the lecture using PowerPoint.
- 3- Utilize simulation programs to explain the lecture in a more scientific and clear manner.
- 4- Use 3D educational videos through platforms like **YouTube** to help students visualize devices and their structures effectively.

10. Evaluation methods

- 1- Reports
- 2- Daily quizzes
- 3- Oral questions during lecture time
- 4- Brainstorming
- 5- End-of-semester exams

11.Faculty									
Faculty Members									
Academic Rank	Specialization		Special Requirem (if applicable)	ents/Skills	Number of the teaching staff				
	General	Special			Staff	Lecturer			
Prof.Dr. Lecturer	Applied geology	Hydro- sediment				Lecturer			

 Professional Development

 Mentoring new faculty members

 Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the

institution and department level.

Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

12.Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

13. The most important sources of information about the program

- 1- Engineering hydrology book
- 2- Hydrology H.M. Raghunath

14. Program Development Plan

- 1- Incorporating the latest resources and continuously updating topics to align with modern advancements, scientific discoveries, and the requirements of academic and professional life.
- 2- Introducing advanced scientific instruments in groundwater hydrology to conduct laboratory experiments, enhancing students' understanding of the subject.
| | Program Skills Outline | | | | | | | | | | | | | | |
|------------|------------------------|----------------|------------------------------------|------|--------|----|----|--------|----|-----------|-----------|--------|----|----|----|
| | | | Required program Learning outcomes | | | | | | | | | | | | |
| Year/Level | Course
Code | Course
Name | Basic or
optional | Knov | vledge | | | Skills | 5 | | | Ethics | | | |
| | | | | A1 | A2 | A3 | A4 | B1 | B2 | B3 | B4 | C1 | C2 | С3 | C4 |
| 2023-2024 | | hydrology | Basic | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

1. Course Name:

Engineering hydrology

2. Course Code:

3. Semester / Year:

Second Semester

4. Description Preparation Date:

1/2/2024

5. Available Attendance Forms: Attendance

6. Number of Credit Hours (Total) / Number of Units (Total)

30 hours per academic term, 3 hours weekly.

7. Course administrator's name (mention all, if more than one name) Name: Sabbar Abdullah Salih Name : Maha Shahir Badawi Name: ektifa taha abdulqader Email: ektifa.taha@tu.edu.iq

8. Course Objectives

Course Objectives

- 1- After completing this course, the student will be able to estimate the amount of water entering and exiting a surface water system.
- 2- Learn how to determine water velocity and depth, and how to calculate discharge in rivers.
- 3- Identify the amount of water lost and compare it with the water entering the system.
- 4- Gain the ability to estimate missing rainfall data at meteorological stations using data from nearby stations.

Teaching	g and Learning Strategies
Strategy	1- Cooperative Concept Planning Teaching Strategy
	2- Brainstorming Teaching Strategy
	3- Observation Series Teaching Strategy

9. Co	9. Course Structure							
Week	Hours	Required Learning Outcomes	Unit or subject name	Lear ning meth od	Evaluation method			

1			1		٦
1-		3hour	The Hydrological Cycle:		
			The process by which		
2-		3hour	water moves		
			through the atmosphere,		
	3-	3hour	ground, and bodies of water.		
			Precipitation (Rainfall) &		
			Measuring Instruments:		
	4-	3hour	Traditional measurement devices.		
			Registered and unregistered		
			instruments.		
	5-	3hour	Rainfall Measurement Networks &		
			Estimating Average Rainfall in a		
			Basin:		
	6	3hour	Techniques for measuring and		
			calculating rainfall over a specific area.		
			Graphical Representation of		
	7	3hour	Rainfall (Hyetograph, Diagram):		
			Visual tools used to represent rainfall		
			data over time.		
			Evaporation & Methods of		
			Measuring Evaporation:		
			Understanding the processes of		
	8	3hour	evaporation and the methods used to		
			measure it.		
			Potential Evapotranspiration:		
			The combined effect of evaporation		
			and plant transpiration from the		
	9	3hour	Earth's surface.		
			Infiltration & Methods of Measuring		
			Infiltration:		
			Study of water penetration into the		
			soil and the tools used to measure this		
			process.		
			Monthly Exam:		
		- 1	A test to assess understanding of the		
	10	3hour	concepts taught so far.		
			Surface Runoff:		
			Components of surface runoff and the		
	11	3hour	factors influencing it.		
			Meteorological factors affecting		
			surface runoff.		
			Characteristics of the watershed.		1
			River Discharge & Calculating Flow		

12	3hour	Rate in a Watercourse:Theories and methods for calculatingflow rates in rivers.Measuring instruments used to assesswater flow.					
13	3hour	Velocity Measurement Dev Water Level Measurement	rices &				
14	3hour	Instruments:Tools used to measure water speedand water levels in rivers and streams.Base Flow Separation &Hydrograph:Techniques for isolating base flowfrom storm flow and representing thisin a hydrograph (standardhydrograph).					
15	3hour	Second Exam + Assignments: A final exam covering the remaining topics and assignments.					
10 Cc	urse Eva	luation					
30 Mar	ks for Th	eory, 15 Marks for Practical Wo	rk, and 5 Marks for Classroom Activities.				
11.Learning and Teaching Resources							
Require	d textbook	s (curricular books, if any)	Engineering Hydrology Book				
Main ref	ferences (s	ources)	Hydrology H.M. Raghunath				
Recomn	nended b	ooks and references (scientific					
Electron	ic Referen	ices, Websites	The Iraqi Virtual Electronic Library Internet Sources for the Material				

Ministry of Higher Education and Scientific Research



Scientific Supervision and Scientific Evaluation Apparatus Directorate of Quality Assurance and Academic Accreditation Accreditation Department

Academic Program and Course Description Guide

2024

Introduction:

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Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extracurricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name:Tikrit.....

Faculty/Institute:College of Science..... Scientific Department: ...Applied Geology..... Academic or Professional Program Name: ...Environmental Geology..... Final Certificate Name: ..Bachelor in Geology..... Academic System: Semester (First Semester)..... Description Preparation Date: Theoretical File Completion Date:

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department:

Date: Signature:

Approval of the Dean

1. Program Vision

Program vision is written here as stated in the university's catalogue and website.

2. Program Mission

Program mission is written here as stated in the university's catalogue and website.

3. Program Objectives

- 1. Introduce students to environmental geology, its concepts, and its importance in addressing problems that arise from the interaction between humans and geological environments, such as the geosphere, hydrosphere, and atmosphere, and the resulting geological hazards and disasters, such as landslides, floods, earthquakes, and others.
- 2. Assess soil and water pollution and how to conserve these two important resources.

4. Program Accreditation

Does the program have program accreditation? And from which agency?

5. Other external influences

Is there a sponsor for the program?

6. Program Structure							
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*			
Institution Requirements							
College Requirements							

	-		
Department			
Requirements			
Summer Training			
Other			

* This can include notes whether the course is basic or optional.

7. Program Description							
Year/Level	Course Code	Course Name	(Credit Hours			
			theoretical	practical			

8. Expected learning outcomes of the program								
Knowledge								
To identify environmental disasters, especially geological ones, determine their causes and evaluate their results.	To suggest appropriate scientific solutions to reduce the impact of the disaster.							
Skills								
The student should innovate solutions and explanations for geological disasters.	Student knowledge of the concept of environmental geology and adaptation to solve problems.							
Learning Outcomes 3	Learning Outcomes Statement 3							
Ethics								
How to give lectures.	Student groups (Team Project).							
tests	Videos							

9. Teaching and Learning Strategies

Managing the lecture in an applied manner linked to the prevailing reality in order to attract the student to the prescribed material without straying from the heart of the matter so that the material is within the framework of practical application. Assign students to group activities and assignments.

Use of up-to-date presentation strategies supported by graphs and illustrative models and short videos.

10. Evaluation methods

Monthly exams, Daily exams, Oral questions during lecture time based on brainstorming.

11.Faculty

Faculty Members

Academic Rank	Specializa	Specialization S F () General Special		s/Skills)	Number of the teaching staff			
	General				Staff	Lecturer		

Professional Development

Mentoring new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

13. The most important sources of information about the program

State briefly the sources of information about the program.

14.Program Development Plan

	Program Skills Outline														
					Required program Learning outcomes										
Year/Level	Course Code	Course Name	Basic or optional	Knov	vledge			Skill	5			Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	С3	C4

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

1. Course Name: Environmental Geology

2. Course Code: Geo23118

3. Semester / Year: Semester

4. Description Preparation Date: 2024 - 2025

5. Available Attendance Forms: attendance

6. Number of Credit Hours (Total) / Number of Units (Total) 30 hours

7. Course administrator's name (mention all, if more than one name) Name: Mahmood Fadhil Abed Email: dr.mahmood@tu.edu.iq

8. Course Objectives

Course Objectives	Introduce students to
	environmental geology, its
	concepts, and its importance in
	addressing problems that arise
	from the interaction between
	humans and geological
	environments, such as the
	geosphere, hydrosphere, and
	atmosphere, and the resulting
	geological hazards and
	disasters, such as landslides,
	floods, earthquakes, and
	others.
	• Assess soil and water pollution
	how to conserve these
	important resources
	Preparing qualified and special
	personnel in the field
	•
9 Teaching and Learning Strategies	- •••••
Strategy	
Suangy	

10. Co	ourse St	ructure			
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First		Understand the lecture topic	Introduction Environmental Geolog	Meet+PDF	Online or person writ or oral exam
Secon	2	Understand the lecture topic	Environmental Geole Concepts	Meet+PDF	Online or person written oral exan
Thir	2	Understand the lecture topic	Study and classificat of natural hazards	Meet+PD	Online in-pers written oral exa
Fourt	2	Understand the lecture topic	Solar System Hazard	Meet+PDF	Online or person written oral exan
Fift	2	Understand the lecture topic	minerals and rocks	Meet+PDF	Online or person written oral exan
Sixt	2	Understand the lecture topic	Plate tectonics and environmental impac	Meet+PDF	Online or person written oral exan
Sevent	2	Monthly exam	Monthly exam	Meet+PDF	Online or person written oral exan
Eigh	2	Understand the lecture topic	Volcanoes and th associated hazards	Meet+PDF	Online or person written oral exan
Nin	2	Understand the lecture topic	Earthquakes a related hazards	Meet+PDF	Online or person written oral exam
Tent	2	Understand the lecture topic	Floods	Meet+PDF	Online or person written oral exam
Elevent	2	Understand the lecture topic	Landslides	Meet+PDF	Online or person written oral exan

Twelft	2	Understand	Soil a	nd environmen	Meet+PDF	Online or
		the lecture				person
		topic				written
		1				orai exaii
Thirtee	2	Understand	mine	al resources	Meet+PDF	Online or
		the lecture				person
		tonic				written
		topic				oral exan
Fourteen	2	Understand	Pollu	tion and Wa	Meet+PDF	Online or
		the lecture	Mana	gement		person
		topic		0		written
						orai exan
Fifteen	2	Monthly exam	Month	y exam	Meet+PDF	Online or
						person
						written
						oral exan
11.Co	ourse Ev	valuation				
Distribu	uting the	e score out of 100 ac	cording	to the tasks a	ssigned to the st	udent such as
daily pr	eparatio	on, daily oral, monthly	, or wri	tten exams, rep	oorts etc	
12.Le	earning	and Teaching Resou	urces			
Require	d textboo	oks (curricular books, it	f any)	Not fo	und	
Main references (sources)				Enviro	onmental geolog	gy
Recomm	nended	books and refe	rences	Not fo	und	
(scientif	fic journa	ls, reports)				
Electron	nic Refere	ences, Websites		Not found		

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



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2024

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Academic Program Description Form

University Name:Tikrit.....

Faculty/Institute:College of Science...... Scientific Department: ...Applied Geology..... Academic or Professional Program Name: ...Mining and Quarries...... Final Certificate Name: ..Bachelor in Geology..... Academic System: Semester (Second Semester)..... Description Preparation Date: Theoretical and practical File Completion Date:

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department:

Date: Signature:

Approval of the Dean

1. Program Vision

Program vision is written here as stated in the university's catalogue and website.

2. Program Mission

Program mission is written here as stated in the university's catalogue and website.

3. Program Objectives

1. Introducing the student to the various types of mining extraction methods and what are the appropriate methods for extracting different types of mineral deposits

4. Program Accreditation

Does the program have program accreditation? And from which agency?

5. Other external influences

Is there a sponsor for the program?

6. Program Structure									
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*					
Institution									
Requirements									
College Requirements									
Department									
Requirements									
Summer Training									
Other									

* This can include notes whether the course is basic or optional.

7. Program Description									
Year/Level	Course Code	Course Name		Credit Hours					
			theoretical	practical					

8. Expected learning outcomes of the program						
Knowledge						
define the Quarries and mines	Identify and use scientific processes and the scientific methods as					
	used by geologists and with other related scientific disciplines.					
Skills						
Class lecture, Laboratory, Quiz						
Tutorial, Assignments						
Learning Outcomes 3	Learning Outcomes Statement 3					
Ethics						
How to give lectures.	Student groups (Team Project).					
tests	Videos					

9. Teaching and Learning Strategies

Managing the lecture in an applied manner linked to the prevailing reality in order to attract the student to the prescribed material without straying from the heart of the matter so that the material is within the framework of practical application. Assign students to group activities and assignments.

Use of up-to-date presentation strategies supported by graphs and illustrative models and short videos.

10. Evaluation methods

Monthly exams, Daily exams, Oral questions during lecture time based on brainstorming.

11.Faculty										
Faculty Members										
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff					
	General Special				Staff	Lecturer				

Professional Development

Mentoring new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

13. The most important sources of information about the program

State briefly the sources of information about the program.

14.Program Development Plan

	Program Skills Outline														
	Required program Learning outcomes														
Year/Level	Course Code	Course Name	Basic or optional	Knov	vledge			Skill	5			Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	С3	C4

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

1. Course Name: Mining and Quarries

2. Course Code: Geo35128

3. Semester / Year: Semester

4. Description Preparation Date: 2024 - 2025

5. Available Attendance Forms: attendance

6. Number of Credit Hours (Total) / Number of Units (Total) 175 hours

7. Course administrator's name (mention all, if more than one name) Name: Mahmood Fadhil Abed Email: dr.mahmood@tu.edu.iq

8. Course Objectives	
Course Objectives	Introducing the student to various types of mining extract methods and what are appropriate methods for extract different types of mineral deposit

9. Teaching and Learning Strategies Strategy define the Quarries a

define the Quarries and mines . Identify and use scientific processes and the scientific metho as used by geologists and with other related scienti disciplines.

List tools and concepts commonly used by geologists.

10. Course Structure										
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method					
First		Understand the lecture topic	Brief history of development of min science	Meet+PDF	Online or person writ or oral exam					

Secon	2	Understand the lecture topic	Terms and definition	Meet+PDF	Online or person written oral exan
Thir	2	Understand the lecture topic	Physical a mechanical propert of ores and rocks	Meet+PD	Online in-pers written oral exa
Fourt	2	Understand the lecture topic	Evaluation of preliminary geologi studies of the ore	Meet+PDF	Online or person written oral exan
Fift	2	Understand the lecture topic	Mine extract methods, their typ characteristics a advantages	Meet+PDF	Online or person written oral exan
Sixt	2	Understand the lecture topic	Surface min methods	Meet+PDF	Online or person written oral exan
Sevent	2	Monthly exam	Monthly exam	Meet+PDF	Online or person written oral exan
Eigh	2	Understand the lecture topic	Subsurface min methods	Meet+PDF	Online or person written oral exan
Nin	2	Understand the lecture topic	Subsurface min methods that ne artificial support	Meet+PDF	Online or person written oral exan
Tent	2	Understand the lecture topic	Subsurface min methods that ne natural support	Meet+PDF	Online or person written oral exan
Elevent	2	Understand the lecture topic	Quarries	Meet+PDF	Online or person written oral exan
Twelft	2	Understand the lecture topic	The concept of mineral reserve	Meet+PDF	Online or person written oral exan
Thirtee	2	Understand the lecture topic	Methods for calculat mineral reserves	Meet+PDF	Online or person written oral exan

-			-				
Fourteen	2	Understand	Mine		clos	Meet+PDF	Online or
		the lecture	opera	ations,	la		person
		topic	leveli	ng	a		written
		1	envir	onmental			orai exaii
			prese	rvation			
Fifteen	2	Monthly exam	Month	ly exam		Meet+PDF	Online or
							person
							written
							oral exam
11.Co	ourse Ev	valuation					
Distrib	uting the	e score out of 100 a	ccording	g to the ta	sks a	ssigned to the st	udent such as
daily pr	reparatio	on, daily oral, month	y, or wri	tten exam	s, rep	orts etc	
12.Le	earning	and Teaching Reso	ources				
Require	d textboo	oks (curricular books,	if any)	No	ot fo	und	
Main re	ferences	(sources)		Ap	oplie	d Mining Geolo	ogy
Recomm	nended	books and ref	erences	No	ot for	und	
(scientif	fic journa	ls, reports)					
Electron	nic Refer	ences, Websites		No	ot fo	und	

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



Academic Program and Course Description Guide

2024

Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

<u>Academic Program Description</u>: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

<u>Course Description</u>: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

<u>Program Vision</u>: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

<u>Program Mission</u>: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

<u>Curriculum Structure:</u> All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must

determine the learning outcomes of each course in a way that achieves the objectives of the program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extracurricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: Faculty/Institute: Scientific Department: Academic or Professional Program Name: Final Certificate Name: Academic System: Description Preparation Date: File Completion Date:

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

Approval of the Dean

1. Program Vision

Program vision is written here as stated in the university's catalogue and website.

2. Program Mission

Program mission is written here as stated in the university's catalogue and website.

3. Program Objectives

General statements describing what the program or institution intends to achieve.

4. Program Accreditation

Does the program have program accreditation? And from which agency?

5. Other external influences

Is there a sponsor for the program?

6. Program Structure									
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*					
Institution									
Requirements									
College Requirements									
Department									
Requirements									
Summer Training									
Other									

* This can include notes whether the course is basic or optional.

7. Program Description								
Year/Level	Course Code	Course Name	(Credit Hours				
			theoretical	practical				

8. Expected learning outcomes of the program					
Knowledge					
Learning Outcomes 1 Learning Outcomes Statement 1					
Skills					
Learning Outcomes 2	Learning Outcomes Statement 2				
Learning Outcomes 3 Learning Outcomes Statement 3					
Ethics					

Learning Outcomes 4	Learning Outcomes Statement 4
Learning Outcomes 5	Learning Outcomes Statement 5

9. Teaching and Learning Strategies

Teaching and learning strategies and methods adopted in the implementation of the program in general.

10. Evaluation methods

Implemented at all stages of the program in general.

11.Faculty							
Faculty Members							
Academic Rank	Specialization		Special Requirement (if applicable	s/Skills)	Number of the teaching staff		
	General	Special			Staff	Lecturer	

Professional Development Mentoring new faculty members Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level. Definition of the process of the proces of the process of the process of the process of the proces of th

Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

13. The most important sources of information about the program

State briefly the sources of information about the program.

14.Program Development Plan



	Program Skills Outline														
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge		Knowledge Skills			Ethics						
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	С3	C4

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

1. (Course I	Name:						
2. (Course (Code:						
	- ·	/ 37						
3. 3	semeste	er / Year:						
1	Doscrint	ion Proparation Da						
4. J	Jescrip							
5. 4	Availabl	e Attendance Forms	:					
6. 1	Number	of Credit Hours (To	tal) / Number of Uni	ts (Total)				
7. (Course	administrator's na	me (mention all, if r	more than on	e name)			
l	Name:							
]	Email:							
0	7							
8. Course	Course (Dbjectives						
Course	Course Objectives •							
	•							
9. 7	Feaching	g and Learning Strat	egies					
Strategy	, 							
10. Co	ourse Str	ructure						
Week	Hours	Required Learning	Unit or subject	Learning	Evaluation			
		Outcomes	name	method	method			
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 and the student such as								
uany preparation, dany oral, montiny, or written exams, reports etc								

12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific	
journals, reports)	
Electronic References, Websites	

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



Academic Program and Course Description Guide

2024

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Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extracurricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: .Tikrit Faculty/Institute: .College of Sciences. Scientific Department: Applied of Geology. Academic or Professional Program Name: Sedimentary rocks Final Certificate Name: Geology Academic System: First course Description Preparation Date: 5/10/2024 File Completion Date: 14/11/2024

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department:

Date: Signature:

Approval of the Dean

1. Program Vision

Program vision is written here as stated in the university's catalogue and website.

2. Program Mission

Program mission is written here as stated in the university's catalogue and website.

3. Program Objectives

Delivering a general idea about the concept of sedimentary rocks and their importance within the specialty, Delivering a general idea about sediments and the importance of this course for the specialty, and providing students with valuable information and skills that make them familiar with the topics and complement the study of sedimentary rocks, which gives an idea about the concept of the transformation of rocks from one form to another under the influence of different geological conditions.

Preparing a group specialized in the field of sedimentary rocks in Iraq..

4. **Program Accreditation**

No

5. Other external influences

No

6. Program Structure						
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*		
Institution Requirements	90	90		Major decided		
College Requirements	Yes					

Department Requirements	Yes		
Summer Training	Found		
Other			

* This can include notes whether the course is basic or optional.

7. Program Description						
Year/Level	Course Code	Course Name	(Credit Hours		
2023-2024/Third	Geo24120	Sedimentary rocks	Theoretical	Practical		

8. Expected learning outcomes of the program				
Knowledge				
Learning Outcomes 1	Delivering an overview of sedimentary rocks.			
	2- The importance of this science in earth sciences.			
	3- Identifying the types of sedimentary rocks and the methods of			
	their formation in nature.			
	4- Classifying sedimentary rocks, identifying their types, and			
	studying their sedimentary structures.			
	5- Identifying the types of sedimentary rocks, depositional			
	conditions, mineral formation, and environmental evidence.			
	6- Determining the ancient environment of sedimentary rocks based			
	on rock and microfacies.			
	7- Distinguishing clastic sedimentary rocks from carbonate rocks and			
	studying their granular components and diagenetic processes.			
Skills				
Learning Outcomes 2	1- Enabling the student to identify advanced methods and concepts			
	of sedimentary rocks.			
	2- Identifying clastic and carbonate sedimentary rocks and			
	identifying depositional environments.			
Learning Outcomes 3	Identifying the origin of sedimentary rock types and their			
	depositional conditions.			
Ethics				
Learning Outcomes 4	Developing students' abilities to understand the subject and			
	developing their scientific abilities in sedimentary rocks			
Learning Outcomes 5	Learning Outcomes Statement 5			

9. Teaching and Learning Strategies

Teaching and learning strategies and methods adopted in the implementation of the program in general.

Enabling the student to identify advanced methods and concepts of sedimentary rocks.

2- Identify clastic and carbonate sedimentary rocks, their distinctive minerals and

the mechanism of their formation.

3- Identify the types of clastic and carbonate sedimentary rocks and determine the depositional environments.

4- Classify clastic and carbonate sedimentary rocks.

10. Evaluation methods

Weekly, monthly, daily and end of semester exams.

11.Faculty						
Faculty Members						
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Assistant Professor Dr.	Geology	Sedimentary rocks			angel	

Professional Development

Mentoring new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

13. The most important sources of information about the program

1.Sedimentary Petrology an Introduction to the Origin of Sedimentary Rocks.Tucker,M.E,2001

2.Petrology of sedimentary rocks, Boggs, Jr.2009

State briefly the sources of information about the program.

14.Program Development Plan

Including topics that are in line with modernity and the requirements of scientific and practical life, and what scientists have reached, on an ongoing basis.

	Program Skills Outline														
							Requ	uired	progra	am Le	earnin	g outcon	ies		
Year/Level	Course Code	Course Name	Basic or optional	Knov	vledge			Skill	5			Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C 3	C4
2023- 2024/Third	Geo24120	Sedimenta ry rocks	Basic												

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

1. Course Name:

Sedimentary rocks

2. Course Code:

Geo24120

3. Semester / Year:

First/First course

4. Description Preparation Date:

14/11/2024

5. Available Attendance Forms:

Attendance only

6. Number of Credit Hours (Total) / Number of Units (Total)

60 semester hours. 4 hours weekly

7. Course administrator's name (mention all, if more than one name) Name: Assisst. Prof.Dr. Amaar Jamad Mohammed Email: geoamaar1977@tu.edu.iq

 8. Course Objectives
 This curriculum is considered a complement to study of sedimentary sedimentary rocks in the th stage, which gives an idea about the concept of transformation of rocks from one form to anot under the influence of different geolog conditions.

 9. Teaching and Learning Strategies

 Strategy

 1- Cooperative conceptual learning planning strategy.

 2- Brainstorming learning strategy.

 3- Educational notebook strategy

10. Course Structure

Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	Week
Daily Exam	11. Explaining	An introduction sedimentary rocks	1. To provide	4	First
Daily Exam	the	Sedimentary of structures	students with the	4	Second
Daily Exam	material	Types of clastic rocks	sedimentary rocks	4	Third
Daily Exam	educational images,	Transportation and deposition of sediments clastic	sedimentary structures and	4	Fourth
Daily Exam	sedimentary structures, field	Gravel sediment, Texture Characteristics	types of clastic rocks and	4	Fifth
Daily Exam	description, and identificatio n of the components	Sandstone sediments, Texture Characteristics, Heavy minerals nature	carbonate. 2.To inform students about the importance of sedimentary rocks,	4	Sixth
Daily Exam	of clastic rocks, sandstone	Classifications Sandstone and their types	their textures, classification and .importance	4	Seventh
Daily Exam	rocks, and structural and non-	Mudstone, sediment, Texture characteristics		4	Eighth
Daily Exam	structural carbonate rock	Carbonate minerals, structure, characters, environments		4	Ninth
Daily Exam	. The study relies on the	Minerals carbonates , Environments, natures, origin.		4	Tenth
Monthly Exam	slides under a	Diageneses processes and their types		4	Eleventh
Daily Exam	microscope. 2. Writing a	Diageneses of environments and their types		4	Twelfth
Daily Exam	review paper for	Platform and their types		4	Thirteenth
Daily Exam	each part, describing the rocks,	Environments carbonates and clastic		4	Fourteenth
Daily Exam	summarizin g the most important outcomes of the topic.	Exam (Theory and Lab.)		4	Fifteenth

	Linking -3					
	the					
	clarification					
	of					
	sedimentary					
	rock topics					
	with					
	students'					
	opinions					
	.and ideas					
11.Course	Evaluation					
Distribution	as follows: 35	theoretical mark	s for monthly and dail	y exams, 15% practical		
marks for rep	orts and an ex	am, total 50%. Fin	al exam mark 50%			
12.Learnin	g and Teachi	ing Resources				
Required texth	ooks (curricula	ar books, if any)	Sedimentary Petrology an Introduction to the			
			Origin of Sedimentary Rocks.Tucker,M.E,2001			
Main reference	es (sources)		Petrology of sedimentar	y rocks,Boggs,Jr.2009		
Recommended	l books and ref	erences (scientific	كتاب علم الرسوبيات (عدنان سعد الله)			
journals, repor	rts)		Sedimentary rocksy	and Sedimentary		
			Stratigraphy			
Electronic Ref	erences, Webs	ites				
			https://sedimentary r	ocks.com /		
			https://www.researcl	ngate.net/		
			neepont in the board	<u>Sacomou</u>		

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



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2024

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1

<u>Program Vision:</u> An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

<u>Program Mission</u>: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

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Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extracurricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: .Tikrit Faculty/Institute: .College of Sciences. Scientific Department: Applied of Geology. Academic or Professional Program Name: Geology ofIraq Final Certificate Name: Geology Academic System: Second course Description Preparation Date: 5/10/2024 File Completion Date: 14/11/2024

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

Approval of the Dean

1. Program Vision

The College of Science seeks to be one of the leading higher education institutions at Tikrit University in the field of modern education and scientific research through its scientific, research and administrative activities. It also works to provide an integrated path for its students and professors to make them active and creative in serving the community in the fields of education.research through its scientific, research and administrative activities. It also works to provide an integrated path for its students and professors to make them active in serving the community in the fields of education.

2. Program Mission

Working to prepare and graduate pioneering scientific and leadership competencies in the sciences and in developing the knowledge base in the field of scientific research to serve the local, regional and international community, in addition to training and refining the minds of students scientifically and cognitively.

3. Program Objectives

The curriculum is a basic applied curriculum that enables the student to learn comprehensive information about the geology of Iraq in all its details and apply it in the field through field trips. It is complementary to the study of sedimentology and stratigraphy that the student studies in other classes.

4. Program Accreditation

No

5. Other external influences

No

6. Program Structure					
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*	
			•		

Institution Requirements	90	90	Major decided
College Requirements	Yes		
Department Requirements	Yes		
Summer Training	Found		
Other			

* This can include notes whether the course is basic or optional.

7. Program Description						
Year/Level	Course Code	Course Name	(Credit Hours		
2023-2024/Third	Geo233	Geology of Iraq	theoretical	practical		

8. Expected learning	8. Expected learning outcomes of the program				
Knowledge					
Learning Outcomes 1	1. This curriculum covers the basics of the geology of Iraq				
	2. Identify surface geology				
	3. Use field trips to identify the nature of the geology of Iraq. 4.				
	Identify tectonic divisions and sedimentary cycles				
	5. Quaternary sediments spread in Iraq				
	6. Collect scientific terms of Iraqi geology with their meanings.				
Skills					
Learning Outcomes 2	1. Enabling the student to become able to understand the geology of				
	Iraq.				
	2. The student understands the geology of Iraq and its complexities.				
	3. Covers information for vast areas of Iraq				
Learning Outcomes 3	Understand the nature of the geology of Iraq Form				
Ethics					
Learning Outcomes 4	Developing students' abilities to understand the subject and develop their				
	scientific abilities in the geology of Iraq				
Learning Outcomes 5	Learning Outcomes Statement 5				

9. Teaching and Learning Strategies

1. Enable the student to identify the advanced methods and concepts of the geology of Iraq.

2- Identify the sedimentary cycles of geological formations in geological ages and surface features.

3- Identify the tectonic divisions of Iraq.

4- Identify the lithology, age and sedimentary environments of the formations.

10. Evaluation methods

Weekly, monthly, daily and end of semester exams.

11.Faculty							
Faculty Members							
Academic Rank	Specializa	ation	Special Requirement (if applicable	s/Skills)	Number of the teaching staff		
	General	Special			Staff	Lecturer	
Assistant Professor Dr.	Geology				angel		

Professional Development
Mentoring new faculty members
Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the
institution and department level.
Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

12.Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

13. The most important sources of information about the program

1.Buday, T., 1980: The Regional Geology of Iraq: Stratigraphy and Paleogeography

, Dar Al-Kutub Publ. House, Mosul, 445p.

2. Jassim, S.Z. and Buday, T., 2006 a: Tectonic framework. In: Jassim S.Z. and Goff, J.C., (eds.), Geology of Iraq, Dolin, Prague and Moravian Museum, Berno. PP. 124-140.

State briefly the sources of information about the program.

14.Program Development Plan

Including topics that are in line with modernity and the requirements of scientific and practical life, and what scientists have reached, on an ongoing basis.

			Pr	ogram	Skills	o Outl	ine								
				Required program Learning outcomes											
Year/Level	Course Code	CourseCourseBCodeName0		Knov	vledge			Skill	5			Ethics			
			_	A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
2023- 2024/Third	Geo233	Geology of Iraq	Basic												

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

1. Course Name:

Quaternary era

2. Course Code:

Geo233

3. Semester / Year:

First/Second course

4. Description Preparation Date:

14/11/2024

5. Available Attendance Forms:

Attendance only

6. Number of Credit Hours (Total) / Number of Units (Total)

60 semester hours. 4 hours weekly

7. Course administrator's name (mention all, if more than one name) Name: Assisst. Prof.Dr. Amaar Jamad Mohammed Email: geoamaar1977@tu.edu.iq

8. Cours	se Objectives	
Course Object	tives	The material is considered important to identify geological formations, nature of rocks, th sequences, thicknesses, geological age, sediment environment, and their distribution within th locations of spread and horizontal and vert extensions, and to compare them with their regio counterparts. With identification of mineral a rock resources in Iraq.
9. Teach	ning and Learning Strategies	
Strategy	1- Teaching strategy Co	llaborative concept planning.
	2- Teaching strategy Br	ainstorming.
	3- Teaching strategy No	ote series
10. Course	Structure	

Evaluation	Learning	Unit or subject	Required Learning	Hours	Week
method	method	name	Outcomes		
Daily Exam	1.Explaining	Introduction to the	1-The student	4	First
	the	Geology of Iraq	understands the		
Daily Exam	scientific	The oldest history of	geology of Iraq,	4	Second
	material by	the world including	fully acquainted		
	drawing the	Iraq	with the nature of		
Daily Exam	section of	The tectonic-kinetic	rocks. sedimentary	4	Third
	geological	framework of	structures. laver		
	formations	sedimentation in Iraq	sequences, and		
Daily Exam	and	The physiographical	formations spread	4	Fourth
Deile Freed	conducting	divisions of Iraq	over the surface		C : f +l,
Dally Exam	the	The geosyncline	and subsurface	4	FITTN
	comparison	marginal basin	with the locations		
	with the	(IIIdigilidi Dasili,	of the spread of		
Daily Exam	fonco or	The stratigraphic	natural resources	1	Sixth
	rogular	nosition of Irag	matural resources,	4	SIALLI
Daily Exam	regular	The stratigraphic		1	Seventh
	pian.	sequence in the	movements, and	4	Seventin
	2. Writing a	Paleozoic to the	local and regional		
	review	Middle Jurassic in	sedimentary cycles		
	paper for	Iraq	through field		
Daily Exam	each part of	The Upper Jurassic-	exploratory tours.	4	Eighth
,	the practical	Early Cretaceous	2- Informing	-	0
	description	cycle	students about the		
Daily Exam	and	The Lower	importance of the	4	Ninth
	summarizin	Cretaceous cycle	geology of Iraq and		
	g the	(Late Priassic-Alpine).	knowing the		
Daily Exam	outcomes of	The Cenomanian-	surface features,	4	Tenth
	the topic.	Early Campanian	movements, and		
	Linking -3	cycle	tectonic events		
Monthly	the surface	The Late Campanian-	throughout the	4	Eleventh
Exam	and	Maestrichtian cycle	ages		
Daily Exam	subsurface	The Paleocene-Lower		4	Twelfth
	sections and	Eocene cycle	-	_	
Daily Exam	conducting	The Late Lower		4	Thirteenth
	the	Eocene-Late Eocene			
Daily Free	comparison	tytie	4 –	•	Fourtoanth
Dally Exam	process to	The Early Miocene-		4	Fourteenth
	determine	cycle and			
	the	Quaternary			
	thicknesses	sediments			
Dailv Exam	and nature	Exam (Theory and	1 F	Δ	Fifteenth
	of the	Lab.)		+	
	avtension of				
	horizontal				
	and vertical				

	.rock facies									
11.Course	Evaluation									
Distribution	as follows: 35	theoretical marks	for monthly and daily	y exams, 15	% practical					
marks for reports and an exam, total 50%. Final exam mark 50%										
12.Learning and Teaching Resources										
Required textl	books (curricula	r books, if any)	عبد الله السباب	، 1982 د.	لوجيا العراق					
			واخرون							
Main referenc	es (sources)		Jassim, S.Z. and Buday,	T., 2006 a: T	Tectonic					
			framework. In: Jassim S	.Z.						
			and Gott, J.C., (eds.), Geology of Iraq, Dolin, Pra							
Recommende	d books and ref	erences (scientific	Buday T 1980: The Regional Geology of Irag							
iournals, repor	rts)	crences (scientifie	Stratigraphy and Paleogeography, Dar Al-Kutub							
J			Publ. House, Mosul, 445p.							
				-						
Electronic Ref	ferences, Websi	tes								
			https://Geology of Ir	<u>aq.com /</u>						

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



Academic Program and Course Description Guide

2024

Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

Academic Program Description: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

<u>Course Description</u>: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

1

<u>Program Vision:</u> An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

<u>Program Mission</u>: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

<u>**Curriculum Structure:**</u> All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must determine the learning outcomes of each course in a way that achieves the objectives of the program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extracurricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: .Tikrit Faculty/Institute: .College of Sciences. Scientific Department: Applied of Geology. Academic or Professional Program Name: Geology ofIraq Final Certificate Name: Geology Academic System: Second course Description Preparation Date: 5/10/2024 File Completion Date: 14/11/2024

Signature: Head of Department Name: Sawsin H. Fesal Signature: Scientific Associate Name:Firas F. Rija

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

Approval of the Dean

1. Program Vision

The College of Science seeks to be one of the leading higher education institutions at Tikrit University in the field of modern education and scientific research through its scientific, research and administrative activities. It also works to provide an integrated path for its students and professors to make them active and creative in serving the community in the fields of teaching and learning living languages.

2. Program Mission

Working to prepare and graduate pioneering scientific and leadership competencies in the sciences and in developing the knowledge base in the field of scientific research to serve the local, regional and international community, in addition to training and refining the minds of students scientifically and cognitively.

3. Program Objectives

The curriculum is a basic applied curriculum that enables the student to learn comprehensive information about the geology of Iraq in all its details and apply it in the field through field trips. It is complementary to the study of sedimentology and stratigraphy that the student studies in other classes.

4. Program Accreditation

No

5. Other external influences

No

6. Program Structure									
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*					
Institution Requirements	90	90		Major decided					

College Requirements	Yes		
Department Requirements	Yes		
Summer Training	Found		
Other			

* This can include notes whether the course is basic or optional.

7. Program Description										
Year/Level	Course Code	Course Name	(Credit Hours						
2023-2024/second		Micropaleontology	theoretical	Practical						

8. Expected learning	outcomes of the program
Knowledge	
Learning Outcomes 1	1- Providing an overview of micropaleontology
	2- The importance of this science in geology
	3- Identifying the ancient environment and ancient environmental
	conditions
	4- Distinguishing the relative ages of geological formations
Skills	
Learning Outcomes 2	1- After completing this course, the student will be able to identify
	the types of microfossils in geological layers.
	2- Identify biostratigraphic units and identify biostratigraphic zones.
	3- Identify the types of biostratigraphic units and the types of
	chronological stratigraphic units.
	4- Identify the types of biostratigraphic units and the types of
	chronostratigraphic units.
Learning Outcomes 3	Developing students' ability to share ideas
Ethics	
Learning Outcomes 4	Learn about fossil classification and paleoenvironmental identification.
Learning Outcomes 5	Learning Outcomes Statement 5

9. Teaching and Learning Strategies

Lecture delivery method:

- 2- Student groups (Team Project).
- 3- Standard method.
- 4- Practical lectures

10. Evaluation methods

Weekly, monthly, daily and end of semester exams.

11.Faculty							
Faculty Members							
Academic Rank	Specialization		Special Requirement (if applicable	s/Skills)	Number of the teaching staff		
	General	Special			Staff	Lecturer	
Professor Dr.	Geology	Stratigraphy & paleontology			angel		

Professional Development

Mentoring new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

13. The most important sources of information about the program

Micropaleontology Book in Arabic

- 2- Micropaleontology Book
- 3- Microfossils Book

14.Program Development Plan

Including topics that are in line with modernity and the requirements of scientific and practical life, and what scientists have reached, on an ongoing basis.

			Pro	ogram	Skills	Outl	ine								
				Required program Learning outcomes											
Year/Level	Course Code	CourseCourseCodeName	Course Basic or K Name optional		vledge			Skill	5			Ethics			
			-	A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C 3	C4
2023- 2024/Second	Geo233	Micropaleon tology	Basic												

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

		•									
1. Course	Name:										
Micropaleon	tology										
2. Course Code:											
Geo222	Geo222										
3. Semester / Year:											
Second /Second course											
4. Descrip	otion Pre	paration Date:									
14/11/2024											
5. Availat	ole Attenc	lance Forms:									
Attenda	ance only										
6. Numbe	r of Cred	it Hours (Total) / Number of Units (Tota	1)								
			,								
60 sem	lester ho	urs. 4 hours weekly									
7. Course	e adminis	strator's name (mention all, if more th	nan one name)								
Name:	Prof.Dr.	Faris N. Hassan	/								
Email:	faris77@)tu.edu.ia									
		<u> </u>									
8. Course	Objectiv	es									
Course Objectiv	es	This aims to determine the relative age of	of rocks, interpret the anci								
Ū.		environment, determine the geographical	extent of the layers, and stu								
0 1 .	1 T	the history of tectonic events.									
9. Teachir	ng and Le	earning Strategies									
Strategy	-	11- Lecture delivery method.									
	4	2- Student groups (Team Project).									
		3- Standard method.									
	4	4- Practical lectures.									
10. Course S	tructure										
			.9								
Evaluation	Learning	Unit or subject name	Week								
2	2	Introduction to Paleontology	First								
2	2	introduction to Facontology	TH SC								
2	2	Microfossil Groups and Their Taxonomic	Second								
		Positions in Paleontology									
2	2	Foraminifera	Third								
2	2	External Eastures of the Earominifere Shall	Fourth								
2	2	External reatures of the Foraminnera Shen	Fourth								
2	2	Classification of Foraminifera	Fifth								
2	2	Geologic History of Foraminifera	Sivth								
-	2	Geologie mistory of roraminiera	SIXUI								

-	-								
2	2	Foraminifera Enviro	Seventh						
2	2	Ostracoda	Eighth						
2	2	Ostracoda Classificat	tion	Ninth					
2	2	Ostracoda Paleoenvir	ronment	Tenth					
2	2	Radiolaria		Eleventh					
2	2	Calcareous Algae		Twelfth					
		0							
2	2	Spores and Pollen G	rains	Thirteenth					
2	2	Morphology in Spore	Morphology in Spores and Pollen Grains						
_	_	morphology in spore							
2	2	Theoretical and Prace	Fifteenth						
11.Course E	Evaluation	ı							
Distribution a	s follows:	35 theoretical mark	s for monthly and dail	y exams, 15% practical					
marks for repo	orts and an	exam, total 50%. Fin	al exam mark 50%						
12.Learning	g and Tea	ching Resources	Γ						
Required textbo	ooks (currie	cular books, if any)	Micropaleontology Book in Arabic						
Main references	s (sources)		1- Micropaleontology Book						
			3- Microfossils Book						
Recommended	books and	references (scientific							
journals, report	s)								
Electronic Refe	rences. We	ebsites							
	,								

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



Academic Program and Course Description Guide

2024

Introduction:

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Academic Program Description Form

University Name: .Tikrit Faculty/Institute: .College of Sciences. Scientific Department: Applied of Geology. Academic or Professional Program Name: Quaternary era Final Certificate Name: Geology Academic System: First course Description Preparation Date: 5/10/2024 File Completion Date: 14/11/2024

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date:

Signature:

Approval of the Dean

1. Program Vision

The College of Science seeks to be one of the leading higher education institutions at Tikrit University in the field of modern education and scientific research through its scientific, research and administrative activities. It also works to provide an integrated path for its students and professors to make them active and creative in serving the community in the fields of education.

2. Program Mission

Working to prepare and graduate pioneering scientific and leadership competencies in the sciences and in developing the knowledge base in the field of scientific research to serve the local, regional and international community, in addition to training and refining the minds of students scientifically and cognitively.

3. **Program Objectives**

1. This curriculum covers the basics of studying the geological formations of the Quaternary period, based on the sedimentary conditions that led to their emergence and formation, and thus studying the sedimentary changes and their presence under physical and chemical weathering conditions.

2. Preparing a group specialized in the field of the Quaternary period

4. **Program Accreditation**

No

5. Other external influences

No

6. Program Structure									
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*					

Institution Requirements	90	90	Major decided
College Requirements	Yes		
Department Requirements	Yes		
Summer Training	Found		
Other			

* This can include notes whether the course is basic or optional.

7. Program Description									
Year/Level	Course Code	Course Name Credit Hours							
2023-2024/Fourth	Geo323	Quaternary era	theoretical	practical					

8. Expected learning outcomes of the program							
Knowledge							
Learning Outcomes 1	1. This course covers the basics of the Quaternary period.						
	2. Identify the Quaternary sediments.						
	3. Use field trips to identify the nature of Pleistocene sediments.						
	4 Identify the Ice Age and the secondary ice ages.						
	5 Explain the Quaternary ice age sediments spread in Iraq.						
	6. Climate changes and their impact on the Quaternary period						
Skills							
Learning Outcomes 2	1.Enabling the student to be able to understand the deposits of the						
	Quaternary period.						
	2. The student understands the Quaternary period and the emergence						
	of ice ages.						
	3. Provides information about the Quaternary period in Iraq						
Learning Outcomes 3	Understands the nature of the deposits of the period and climate						
	changes.						
Ethics							
Learning Outcomes 4	Developing students' abilities to understand the subject and						
	developing their scientific abilities in studying the Quaternary period						
Learning Outcomes 5	Learning Outcomes Statement 5						

9. Teaching and Learning Strategies

1.Enable the student to identify advanced methods and concepts of the Quaternary period.

2- Identify climate changes and glacial changes regionally and locally in the Quaternary Pleistocene period.

3-Enable the student to collect information about the Quaternary period.

- 4-Understand the Quaternary sediments and their complexities.
 - 4

5-Cover information for vast areas of Iraq and neighboring countries.

10. Evaluation methods

Weekly, monthly, daily and end of semester exams.

11.Faculty							
Faculty Members							
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff		
	General	Special			Staff	Lecturer	
Assistant Professor Dr.	Geology				angel		

Professional Development

Mentoring new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

12.Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

13. The most important sources of information about the program

1. Jassim, S.Z. and Buday, T., 2006 a: Tectonic framework. In: Jassim S.Z. and Goff, J.C., (eds.), Geology of Iraq, Dolin, Prague and Moravian Museum, Berno. PP. 124-140.

State briefly the sources of information about the program.

14.Program Development Plan

Including topics that are in line with modernity and the requirements of scientific and practical life, and what scientists have reached, on an ongoing basis.

Program Skills Outline															
				Required program Learning outcomes											
Year/Level	Course Code	urse Course ode Name	Basic or optional	Knowledge			Skills			Ethics					
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C 3	C4
2023- 2024/Third	Geo164	Quaternary era	Basic												

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

1. Course Name:

Quaternary era

2. Course Code:

Geo164

3. Semester / Year:

First/First course

4. Description Preparation Date:

14/11/2024

5. Available Attendance Forms:

Attendance only

6. Number of Credit Hours (Total) / Number of Units (Total)

30 semester hours. 2 hours weekly

7. Course administrator's name (mention all, if more than one name) Name: Assisst. Prof.Dr. Amaar Jamad Mohammed Email: geoamaar1977@tu.edu.iq

8. Course Objectives

Course Objectives The material is important to learn about Quaternary period, climate changes, the Pleistoc Ice Age, the effects of melting ice, flood events, determining ages using radioactive isotopes pollen. And to learn about the impact of changes that occurred during the Ouatern period and the resulting and influential changes the Earth's surface, volcanoes and earthqual affecting human life, learning about development of humans and mammals during period and the changes that occurred. And the distribution within their locations of spread their horizontal and vertical extensions comparing them with their regional counterparts 9. Teaching and Learning Strategies Strategy 1- Teaching strategy Collaborative concept planning. 2- Teaching strategy Brainstorming. 3- Teaching strategy Note series 10. Course Structure
Evaluation method	Learning method	Unit or subject	Required Learning Outcomes	Hours	Week
Daily Exam	incento a	Quaternary	The student -1	2	First
Daily Exam	•	stratigraphy and	understands the	2	1100
		climate change	Quaternary era in		
Daily Exam		Methods of using		2	Second
,		radioactive materials	iraq, iuliy	2	
		in the study of the	understanding the		
		Quaternary period.	nature of climate		
		carbon, oxygen	changes, ice ages,		
Daily Exam		Climate changes	and events	2	Third
,		during the	resulting from	2	
		Quaternary period	earthquakes and		
		and their differences	volcanoes. 2-		
		from previous	Informing students		
		periods	about the		
Daily Exam		Climate changes	importance of the	2	Fourth
,		during the	Ousternary ors and	~	
		Quaternary period			
		and the modern	knowing the		
		period and their	geological history		
		impact on the sea	of the Pleistocene		
		surface	and Holocene,		
Daily Exam		Geology of the	tectonic	2	Fifth
Durly Exam		Quaternary period	movements and	2	
		and the stratigraphic	events, and glacial		
		column and	changes during		
		determining the	geological ages		
		contact	"PeoloBiear ages		
Daily Exam		Ancient geography	-	2	Sixth
Dany Litam		and ancient climate		2	onteri
		and periods similar to			
		the Quaternary			
		neriod			
Daily Exam		Tectonic instability		2	Seventh
		during the		2	Seventi
		Quaternary period			
		and its impact on			
		climatic conditions			
Daily Exam		Geological history of		2	Fighth
Duny Lixan		the Pleistocene and		2	2181111
		Holocene and			
		determining the			
		connection hetween			
		them			
Daily Exam		Time divisions of the	–	2	Ninth
		Pleistocene and the		۷	INIILII
		neriod of extremity			
Daily Exam		Land layors and			Tonth
		cashada and		۷	rentil

	them and	their					
	importanc	e					
Monthly	Measuring	the age of		2	Eleventh		
Exam	rocks by ca	arbon,					
	oxygen an	d other					
	radioactive	e elements					
Daily Exam	Changes o	ccurring in		2	Twelfth		
	the ice and	d their					
	effects on	sea level					
Daily Exam	Flood ever	nts and		2	Thirteenth		
	their effec	ts in Iraq					
Daily Exam	Environme	ental		2	Fourteenth		
	hazards, fl	oods,					
	volcanoes	and					
	earthquak	es					
Daily Exam	Exam (The	ory and		2	Fifteenth		
	Lab.)						
11.Course	Evaluation						
Distribution	as follows: 40 theoretic	cal marks	for monthly and dai	ly exams, 10	0% practical		
marks for rep	orts and an exam, total 5	50%. Final	exam mark 50%	,	1		
12.Learnir	g and Teaching Resou	irces					
Required text	pooks (curricular books if	any) (Justornary Coogoo	logy 2001	Drof Than		
Required texts				10gy, 2001 1	, FIUL IIIali		
		K	nazai Al-Amiri, 32	1 pages			
Main reference	es (sources)	Ja	assim, S.Z. and Buday,	T., 2006 a: T	ectonic		
		fr	amework. In: Jassim S	.Z.			
		a	and Gott,J.C.,(eds.),Geology of Iraq,Dolin, Prague				
		N	Moravian Museum, Berno. PP. 124-140				
Recommende	d books and references (so	cientific	Quaternary Geology Books, Tikrit Journal of				
journals, report	rts)		Pure Sciences.				
			Virtual Electronic Li	brary, Interne	et References		
Electronic Re	erences, Websites			• (
		<u> h</u>	ttps:/Quaternary of	Iraq.com /			

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



Academic Program and Course Description Guide

2024

Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

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In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

Academic Program Description: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

<u>Course Description</u>: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

<u>Program Vision</u>: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

<u>Program Mission</u>: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

<u>**Curriculum Structure:**</u> All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must determine the learning outcomes of each course in a way that achieves the objectives of the program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extracurricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: .Tikrit Faculty/Institute: .College of Sciences. Scientific Department: Applied of Geology. Academic or Professional Program Name: Sedimentology Final Certificate Name: Geology Academic System: First course Description Preparation Date: 5/10/2024 File Completion Date: 14/11/2024

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date:

Signature:

Approval of the Dean

1. Program Vision

Program vision is written here as stated in the university's catalogue and website.

2. Program Mission

Program mission is written here as stated in the university's catalogue and website.

3. Program Objectives

o deliver a general idea about the concept of sedimentary rocks and their importance within the specialty, to deliver a general idea about sediments and the importance of this course for the specialty, and to provide students with valuable information and skills that make them familiar with the topics and complement the study of sedimentary rocks, which gives an idea about the concept of the transformation of rocks from one form to another under the influence of different geological conditions. And to prepare a group specialized in the field of sedimentary rocks in Iraq.

4. Program Accreditation

No

5. Other external influences

No

6. Program Structure						
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*		
Institution Requirements	90	90		Major decided		
College Requirements	Yes					
Department Requirements	Yes					

Summer Training	Found		
Other			

* This can include notes whether the course is basic or optional.

7. Program Description							
Year/Level	Course Code	Course Name		Credit Hours			
2023-2024/Second	Geo12017		theoretical	practical			

8. Expected learning	8. Expected learning outcomes of the program				
Knowledge					
Learning Outcomes 1	1- Provide an overview of sedimentology.				
	2- The importance of this science in earth sciences				
	3- Identify the types of sediments, their formation methods, chemical				
	and physical weathering.				
	4- How to classify rocks, diagnose their types, and study their occurrence in nature.				
	5- Identify their types, mineral formation methods, and				
	environmental evidence.				
	o- A detailed explanation of their types, volumetric analysis methods,				
S1-:11a	and providing explanations and mechanisms of their formation.				
Skills					
Learning Outcomes 2	Enabling the student to identify advanced methods and concepts of sedimentology.				
	2- Identify the minerals of clastic and carbonate sedimentary rocks				
	and identify depositional environments				
Learning Outcomes 3	Identify the types of clastic and carbonate rocks and their				
	sedimentary origin.				
Ethics					
Learning Outcomes 4	Developing students' abilities to understand the subject and				
	developing their scientific abilities in sedimentology				
Learning Outcomes 5	Learning Outcomes Statement 5				

9. Teaching and Learning Strategies

Teaching and learning strategies and methods adopted in the implementation of the program in general.

1-nabling the student to identify advanced methods and concepts of sedimentology.2- Identify weathering and erosion processes, transport and deposition mechanismsIdentify gravel particles, analyze them, their origin and formation mechanism.3- Identify types of clastic sedimentary rocks, their mineral compositions and depositional environments.

4- Identify heavy minerals, their types and importance for source identification

- 5- Identify carbonate minerals and their depositional environments
- 6- Study evaporites, their minerals and formation mechanism
- 7- Identify phosphate rocks and iron oxides and their formation methods.

10. Evaluation methods

Weekly, monthly, daily and end of semester exams.

11.Faculty						
Faculty Members						
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Assistant Professor Dr.	Geology	Sedimentology			angel	

Professional Development

Mentoring new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

13. **The most important sources of information about the program** 1.Sedimentary Petrology an Introduction to the Origin of Sedimentary

Rocks.Tucker.M.E.2001

2.Petrology of sedimentary rocks, Boggs, Jr.2009

State briefly the sources of information about the program.

14.Program Development Plan

Including topics that are in line with modernity and the requirements of scientific and

practical life, and what scientists have reached, on an ongoing basis.

	Program Skills Outline														
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knov	vledge			Skill	5			Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C 3	C4
2023- 2024/Second	Geo12017	Sedimento logy	Basic												

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

Sedimentology

2. Course Code:

Geo12017

3. Semester / Year:

First/First course

4. Description Preparation Date:

14/11/2024

5. Available Attendance Forms:

Attendance only

6. Number of Credit Hours (Total) / Number of Units (Total)

60 semester hours. 4 hours weekly

7. Course administrator's name (mention all, if more than one name) Name: Assisst. Prof.Dr. Amaar Jamad Mohammed Email: geoamaar1977@tu.edu.iq

8. Cours	se Objectives				
Course Object	tives	-This curriculum is considered a complement to			
		study of sedimentology in that it gives an idea ab			
		the concept of minerals in nature, clastic a			
		carbonate rocks			
		-Methods of formation, different geolog			
		conditions, the effects of mechanical, chemical a biological mechanical and codimented			
		processes, and depositional environments.			
9. Teacl	ning and Learning Strategies				
Strategy	1- Cooperative concept	ual learning planning strategy.			
	2- Brainstorming learni	ng strategy.			
	3- Educational notebook strategy				

10. Course Structure

Evaluation	Learning	Unit or subject	Required Learning	Hours	Week
method	method	name	Outcomes		
Daily Exam	1.Explaining	Introduction,		4	First
	the	Decomposition and	1.To provide		
	scientific	Wethering	students with the		
Daily Exam	material	Role of water in	skill of studying the	4	Second
	through	sediment Production.	science of rubies		
Daily Exam	mechanical	Chemical and	and their	4	Third
	analysis,	Physical Weathering.	formations and to		
Daily Exam	applying	Transportation and	identify the types	4	Fourth
	special	deposition of	of clastic and		
	equations	Sediments (water ,	carbonite		
	sand	wind , glaciers).	2- To inform		
Daily Exam	volumotric	Clastic sediment,	z- 10 mom	4	Fifth
	volumetric	Texture	students of the		
	analysis,	Characteristics.	importance of		
Daily Exam	and using	Quartz+ Feldspar	studying clastic and	4	Sixth
·	statistical	types , origin.	carbonite		
	laws and	Characters.	sedimentary lions,		
Daily Exam	equations.	Heavy minerals	their texture and	4	Seventh
		nature, types,	.their significance		
	2. Writing a	classifications			
Daily Exam	review	Clay minerals	-	4	Fighth
2 0, 2	paper for	Minerals types			8
	each part	classifications			
	describing	Characters			
Daily Exam	the sand	Mica minerals	-	1	Ninth
	and gravel	types origin		4	NIII (III
	volumetric	importance			
Daily Exam	apalysis	Carbonato		1	Tenth
Dally Lxall	allalysis,	calibonate		4	rentii
Monthly	summarizin	Carbonato minorals	-	1	Flovonth
Evam	g the most	carbonate minerais,		4	Lieventin
Exam	important	structure, characters,			
Daily Eyem	outcomes of	Environments.	-	4	Twolfth
Dally Exam	the topic.	Evaporates , ivinerais		4	Twenth
		, Environments,			
	Linking -3	natures, origin.	-		
Daily Exam	the	Phosphate,		4	Thirteenth
	explanation	occurrence ,Origin,			
	of	Environments.	-		
Daily Exam	sedimentary	Ironstone minerals,		4	Fourteenth
	petrology	environments,			
	topics with	occurrence.			
Daily Exam	students'	Exam (Theory and		4	Fifteenth
	oninions	Lab.)			
	and ideas				
11 Course	Evolution				
Distribution	Evaluation) theoretical marks	for monthly and dail	u ovama o	0 practical
	as 10110WS: 20	S meorencar marks	tor monuny and dan	iy exailis, Z	o practical

marks for reports and an exam, total 40%. Final exam mark 60%					
12.Learning and Teaching Resources					
Required textbooks (curricular books, if any)	Sedimentary Petrology an Introduction to the				
	Origin of Sedimentary Rocks.Tucker,M.E,2001				
Main references (sources)	Petrologyof sedimentary rocks,Boggs,Jr.20				
Recommended books and references (scientific	Sedimentology Basics, Sedimentology Bod				
journals, reports)	Tikrit Journal of Pure Sciences				
	Virtual Electronic Library, Inter				
	References				
Electronic References, Websites	https://sedimentology.com /				
	https://www.researchgate.net/				

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



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2024

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1

<u>Program Vision:</u> An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

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Academic Program Description Form

University Name: .Tikrit Faculty/Institute: .College of Sciences. Scientific Department: Applied of Geology. Academic or Professional Program Name: Geology ofIraq Final Certificate Name: Geology Academic System: Second course Description Preparation Date: 5/10/2024 File Completion Date: 14/11/2024

Signature: Head of Department Name: Sawsin H. Fesal Signature: Scientific Associate Name:Firas F. Rija

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

Approval of the Dean

1. Program Vision

The College of Science seeks to be one of the leading higher education institutions at Tikrit University in the field of modern education and scientific research through its scientific, research and administrative activities. It also works to provide an integrated path for its students and professors to make them active and creative in serving the community in the fields of teaching and learning living languages.

2. Program Mission

Working to prepare and graduate pioneering scientific and leadership competencies in the sciences and in developing the knowledge base in the field of scientific research to serve the local, regional and international community, in addition to training and refining the minds of students scientifically and cognitively.

3. Program Objectives

The curriculum is a basic applied curriculum that enables the student to learn comprehensive information about the geology of Iraq in all its details and apply it in the field through field trips. It is complementary to the study of sedimentology and stratigraphy that the student studies in other classes.

4. Program Accreditation

No

5. Other external influences

No

6. Program Structure							
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*			
Institution Requirements	90	90		Major decided			

College Requirements	Yes		
Department Requirements	Yes		
Summer Training	Found		
Other			

* This can include notes whether the course is basic or optional.

7. Program Description							
Year/Level	Course Code	Course Name	Credit Hours				
2023-2024/Third	Geo233	Stratigraphy	theoretical	Practical			

8. Expected learning outcomes of the program				
Knowledge				
Learning Outcomes 1	1- Provide an overview of stratigraphy.			
	2- Understand the importance of this science in geology.			
	3- Identify the types of strata found in the field.			
	4- Distinguish geological formations			
Skills				
Learning Outcomes 2	 After completing this course, the student will be able to identify the types of geological strata and the rock characteristics, whether they are chemical sedimentary, clastic sedimentary, igneous, or metamorphic. Identify the rock stratigraphic units (group, formation, member, and layer) in the field based on the physical characteristics visible to the eye. Identify the types of biostratigraphic units and the types of chronostratigraphic units. 			
Learning Outcomes 3	Developing students' ability to share ideas			
Ethics				
Learning Outcomes 4	Developing students' abilities to understand the subject and develop their scientific abilities in the geology of Iraq			
Learning Outcomes 5	Learning Outcomes Statement 5			

9. Teaching and Learning Strategies

Lecture delivery method:

- 2- Student groups (Team Project).
- 3- Standard method.
- 4- Practical lectures

10. Evaluation methods

Weekly, monthly, daily and end of semester exams.

11.Faculty							
Faculty Members							
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff		
	General	Special			Staff	Lecturer	
Professor Dr.	Geology	Stratigraphy & paleontology			angel		

Professional Development

Mentoring new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.

Professional development of faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

13. The most important sources of information about the program

1.Buday, T., 1980: The Regional Geology of Iraq: Stratigraphy and Paleogeography

2- Stratigraphy and Sedimentology Book

State briefly the sources of information about the program.

14.Program Development Plan

Including topics that are in line with modernity and the requirements of scientific and practical life, and what scientists have reached, on an ongoing basis.

Program Skills Outline															
				Required program Learning outcomes											
Year/Level Course Course Code Name	Course Name	Course Basic or Name optional	Knov	vledge			Skill	5			Ethics				
			-	A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C 3	C4
2023- 2024/Second	Geo233	Stratigraphy	Basic												
															L

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

Quaternary era

2. Course Code:

Geo222

3. Semester / Year:

First/Second course

4. Description Preparation Date:

14/11/2024

5. Available Attendance Forms:

Attendance only

6. Number of Credit Hours (Total) / Number of Units (Total)

60 semester hours. 4 hours weekly

7. Course administrator's name (mention all, if more than one name) Name: Prof.Dr. Faris N. Hassan Email: <u>faris77@tu.edu.iq</u>

8. Course Objectives

Course Objectives		This aims to determine the relative age of rocks, interpret the anci
		environment, determine the geographical extent of the layers, and stu
		the history of tectonic events.
	1 7	

1

9. Teaching and Learning Strategies

- 11- Lecture delivery method.
 - 2- Student groups (Team Project).
 - 3- Standard method.
 - 4- Practical lectures.

10. Course Structure

Strategy

Evaluation method	Learning method	Unit or subject name	Week
2	2	An introduction to stratigraphy and the role of scientists in developing this science	First
2	2	Stratification and lithostratigraphic units	Second
2	2	Classification of lithostratigraphic units	Third
2	2	Naming lithostratigraphic units	Fourth
2	2	Steps used to create a lithostratigraphic unit	Fifth
2	2	Methods for matching lithostratigraphic units	Sixth

2	2	Biostratigraphic Unit	S	Seventh				
2	2	T (D) (1					
2	2	Types of Biostratigra	phic Units and	Eighth				
		Correspondence						
2	2	In the second Character and		NI:				
2	2	Immanent Stratigrap	nic Units	NINTN				
2	2	Magnatia Stratign	anhia Unita Field	Tonth				
2	2	Reversal	apilie Ullits, Field	rentii				
2	2	Evidence and Magne	tic Susceptibility	Floventh				
2	2	Biogroups and Geog	raphic Distribution of	Lieventii				
		Organisms	Tapine Distribution of					
		Organisins						
2	2	Vertical and Horizon	tal Stratigraphic	Twelfth				
_	_	Relationships	un Strangraphie					
2	2	Facies and Facies Ma	aps	Thirteenth				
2	2	Surface and Subsurface Stratigraphic Fourteenth						
		Studies						
2	2	Theoretical and Pract	Fifteenth					
11 Course T								
11.Course E								
Distribution as	s follows:	35 theoretical mark	s for monthly and daily	y exams, 15% practical				
marks for repo	orts and an	exam, total 50%. Fin	al exam mark 50%					
12.Learning	and Tead	ching Resources						
Required textbo	ooks (curric	cular books, if any)	Stratigraphy a	nd Sedimentology -2				
Main references	s (sources)		0					
Recommended	books and	references (scientific	.Buday, T., 1980: The Regional Geology of Iraq:					
journals, reports	s)		Stratigraphy and Paleogeography, Dar Al-Kutub					
			Publ. House, Mosul, 445	бр.				
Electre ' D C		1						
Electronic Refe	rences, We	osites						

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



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2024

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Academic Program Description Form

University Name: ...Tikrit..... Faculty/Institute:College of Science.... Scientific Department:Applied Geology Academic or Professional Program Name: ..Geology..... Final Certificate Name:Bachelor in Geology..... Academic System: ...Semsters..... Description Preparation Date: 5-10-2024 File Completion Date: 14-5-2025

Signature: Head of Department Name: Signature: Scientific Associate Name:

Date:

Date:

The file is checked by: Department of Quality Assurance and University Performance Director of the Quality Assurance and University Performance Department: Date: Signature:

Approval of the Dean

1. Program Vision

The Department of Geosciences adopts as its goal to become a nationally recognized leader in integrating research excellence and education in applied geology. In research, we strive to sustain and grow a resource platform that continues to enable our scientists to contribute at high levels to internationally significant research problems in geology. In education, we strive to provide students with opportunities to discover and develop relevant knowledge and skill sets that will enable them to achieve their professional goals. We believe that creative integration of research with education will promote excellence in both. We will create undergraduate programs that attract students from across nation and prepares them for professional careers, and we will become a significant component of foundational education at Tikrit University.

2. Program Mission

The Department of Applied Geology at Tikrit University creates and disseminates knowledge about Earth's processes and properties for students, scientists, and the public to help create a scientifically informed community. We provide high quality educational opportunities for students seeking PhD, MS, and BS degrees in core strength areas within Applied Geology, and bring earth science principles to the foundational education mission of the university. In all programs, we enable students to discover and develop relevant knowledge and skillsets so that they can achieve their professional goals and pursue solutions to resource and environmental challenges facing the state, nation, and world. We welcome motivated individuals who are passionate about science, value diversity and tolerance, and believe in wise stewardship of our planet through critical thinking and dialogue.

3. **Program Objectives**

- 1. Prepare students for professional careers in natural resources or environmental sciences, graduate school for advanced studies, or any future where scientific thinking is used. The four degree track options are geology, geophysics, hydrology, and secondary education.
- 2. Prepare students for successful scientific, technical or management careers in the geosciences or related fields
- 3. Provide employers with a well-educated workforce that is ready and able to perform valuable scientific, technical or managerial services immediately after graduation
- 4. Encourage the growth of knowledge-based industry and stimulate economic growth in Iraq.
- 5. Acquire advanced knowledge of geology and earth system science in addition to their major area of study area
- 6. Acquire advanced knowledge of hydrology and earth system science in addition to their major area of study area.

4. Program Accreditation

No

5. Other external influences

No

6. Program Structure

Program Structure	Number of	Credit hours	Percentage	Reviews*
	Courses			
Institution				
Requirements				
College Requirements				
Department				
Requirements				
Summer Training	Yes			
Other				

* This can include notes whether the course is basic or optional.

7. Program Description							
Year/Level	Course Code	Course Name	Credit Hours				
			theoretical	practical			
Third		Rock Geochemistry	2	2			

8.	Expected learning outcomes of the program						
Knowledge							
1.	1. Recognizing the distribution of elements in the different types of rocks.						
2.	2. Understand the behavior of elements in the sedimentary environment.						
3.	3. Understanding the main factors controlling the weathering of minerals.						
4.	4. Understanding the chemical weathering process and their effects on rocks.						
Skills	lls						
Identify the mineral and chemical composition of the igneous, metamorphic, and sedimentary rocks.							
Determining the provenance of the sedimentary rocks.							
Ethics							

9. Teaching and Learning Strategies

- 1. Class lecture
- 2. Laboratory
- 3. Tutorial
- 5. Assignments

10. Evaluation methods

Examinations (Oral and written).

11.Faculty									
Faculty Members									
Academic Rank	Specializa	ation	Special Requirements (if applicable)	s/Skills)	Number of the teaching staff				
	General	Special			Staff	Lecturer			
Professor	Geology	Geochemistry			1				
Assistant Professor	Geology	Geochemistry			1				

Professional Development Mentoring new faculty members

Professional development of faculty members

12. Acceptance Criterion

The admission is subjected to Ministry of Higher Education and Scientific Research rules.

13. The most important sources of information about the program

Journals, Review articles, Books

14.Program Development Plan

We plan to have a new devices for analysis such as XRD, XRF, and ICP-MS

Program Skills Outline															
					Required program Learning outcomes										
Year/Level	Course Course Code Name	Course Name	Basic or optional	Knowledge			Skills			Ethics					
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	С3	C4
															ļ
Third		Geochemi stry	Basic		\checkmark			1				√			

• Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form

1. Course Name:									
Rock Geochemistry									
2. Course Code:									
3. Semester / Year:									
Semester									
4. Description Preparation Date:									
14-2-2024									
5. Available Attendance Forms:									
Attendance only									
6. Number of Credit Hours (Total) / Number of Units (Total)									
60hours/ 4 hours per week									
7. Course administrator's name (mention all, if more than one name)									
Name: Mohamed W. Alkhafaji									
Email: <u>mohamedajeel@tu.edu.iq</u>									
Tahir Mahmood Taha									
<u>Tahir.mahmood@tu.edu.iq</u>									
8. Course Objectives									
 Rock analyses can identify the tectonic origin of bedrock, which helps geoscientists to interpret regional geology and define mineral potential. Analyses of rocks collected from mineralized bedrock or float can reveal economic concentrations of metals. Geochemical analyses can show whether mineralizing fluids have altered rock composition. Such alteration can be associated with economic mineral deposits. Analyses of soil, till, and stream or lake sediments can indicate geochemical anomalies caused by mineralization in nearby bedrock. 									
9. Teaching and Learning Strategies									
Strategy 1. Class lecture 2. Laboratory 3. Quiz 4. Tutorial 5. Assignments									
Week Hours Required Unit or subject Learning Evaluation									
Learning name method method									

1	4	Review about the minerals and rock	Introduction	Class Lecture	Oral or written examina				
2	4	Geochemistry of igneous rocks Phas	Igneous rocks-1	Class Lecture	Oral or written examina				
3	4	Phase rule- two component	Igneous rocks-2	Class Lecture	Oral or written examina				
4	4	Distribution of eleme in igneous rocks	Composition of igneor rocks	Class Lecture	Oral or written examina				
5	4	Behaviors of major a trace elements durin partial melting and crystallization of me	Partial melting and Crystallization	Class Lecture	Oral or written examina				
6	4	The factors controlling the distribution of elements in igneo rocks	Goldschmidt rules	oldschmidt rules Class Lecture					
7	4	Mid-term Examinati	-		Written examination				
8	4	Element group such as volatile elements-semi- volatile elements.	Geochemical period table	Class Lecture	Oral or written examina				
9	4	Geochemistry o metamorphic roc	Metamorphic Rocks-1	Class Lecture	Oral or written examina				
10	4	Type of weatherin	Sedimentary Rocks	Class Lecture	Oral or written examina				
11	4	Processes of Chemi weathering	Chemical weathering	Class Lecture	Oral or written examina				
12	4	Ionic potential and I	The factors controlling distribution of elements sedimentary rocks-1	Class Lecture	Oral or written examina				
13	4	Eh	The factors controlling distribution of elements sedimentary rocks-2	Class Lecture	Oral or written examina				
14	4	Distribution of eleme In s sedimentary roo	Elements in sedimentary rock	Class Lecture	Oral or written examina				
15	4	Generation, types, a importance of collo	Colloids	Colloids Class Lecture Oral or written exam					
11.Co	ourse Ev	aluation							
Daily preparation 10 Oral examination10									
Reports10 Written Examination10									
Practical10 Final Examination50									
12 Learning and Teaching Resources									
Required textbooks (curricular books, Geochemistry									
Main ref	ferences	(sources)	Introduct	Introduction to Geochemistry					
Recomm	nended 1	hooks and referen	ices Lourne	Lournal of Sodimontory Coology					
(scientif	ic journa	ls, reports)	Journa Geoch	Geochemica et Cosmochemica acta					
Electron	ic Refere	ences Websites	https://ww	https://www.sciencedirect.com/topics/chemistry/geochemi					
LICCUOL			incost w	https://www.setencedirect.com/topics/chemistry/geoenemi					



Ministry Higher Education and Scientific Research Scientific Supervision and Evaluation Authority circleQuality Assurance and Academic Accreditation Accreditation Department



Academic Program and Course Description Guide

2024

The Introduction:

The educational program is a coordinated and organized package of courses that include procedures and experiences organized in the form of study vocabulary, the main purpose of which is to build and refine the skills of graduates, making them qualified to meet the requirements of the labor market. It is reviewed and evaluated annually through internal or external audit procedures and programs, such as the external examiner program.

The academic program description provides a brief summary of the main features of the program and its courses, indicating the skills that students are working to acquire based on the objectives of the academic program. The importance of this description is evident because it represents the cornerstone in obtaining program accreditation, and the teaching staff participates in writing it under the supervision of the scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the vocabulary and paragraphs of the previous guide in light of the developments and changes in the educational system in Iraq, which included a description of the academic program in its traditional form (annual, semester) in addition to adopting the description of the academic program circulated pursuant to the letter of the Department of Studies TM3/2906 dated 5/3/2023 regarding programs that adopt the Bologna process as a basis for their work.

In this regard, we cannot but emphasize the importance of writing a description of academic programs and courses to ensure the smooth running of the educational process.

Concepts and terms:

<u>Academic Program Description</u>: The academic program description provides a concise summary of its vision, mission and objectives, including a precise description of the targeted learning outcomes according to specific learning strategies.

<u>**Course Description:**</u>Provides a concise summary of the main characteristics of the course and the learning outcomes expected of the student, demonstrating whether the student has made the most of the learning opportunities available. It is derived from the programme description.

<u>Program vision:</u> An ambitious vision for the future of the academic program to be an advanced, inspiring, motivating, realistic and applicable program.

Program message: It briefly explains the objectives and the activities required to achieve them, and it also identifies the paths and directions of the programme's development.

Program objectives: These are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

<u>**Curriculum structure:**</u>All courses/subjects included in the academic program according to the approved learning system (semester, year, Bologna track) whether they are required (ministry, university, college and scientific department) with the number of academic units.

Learning outcomes: A compatible set of knowledge, skills and values acquired by the student after successfully completing the academic program. The learning outcomes for each course must be determined in a way that achieves the program's objectives.

<u>**Teaching and learning strategies</u>**: It is the strategies used by the faculty member to develop the teaching and learning of the student and they are plans that are followed to reach the learning objectives. That is, it describes all the classroom and extracurricular activities to achieve the learning outcomes of the program.</u>
Academic Program Description Form

University Name: University of Tikrit College/Institute: College of Science Department: Department of Earth Sciences Academic or Professional Program Title: Bachelor of Applied Earth Sciences Final Degree Title: Bachelor of Applied Earth Sciences Academic System: Semester Description Preparation Date: 10/5/2023 File Completion Date:14/5/2025

the signature : Scientific Assistant Name: the date : the signature : Name of the Department Head: the date :

Check the file before Quality Assurance and University Performance Division Name of the Director of the Quality Assurance and University Performance Division: the date

the signature

Dean's approval

1. **Program vision**

Seekingcollege the sciencesTo be one of the leading higher education institutions inuniversity TikritIn the field

of modern education and scientific research through its scientific, research and administrative activities, it also works to provide an integrated path for its students and professors to make them active and creative in serving the community in the fields of education.the sciencesSnake and its education.

2. Program message

Working on preparing and graduating pioneering scientific and leadership competencies in the sciencesAnd its sciences and literature, and in developing the knowledge base in the field of scientific research to serve the local, regional and international community, in addition to training and refining the minds of students scientifically and cognitively, emphasizing social and cultural values and responding to the requirements of the local market.

3. **Program objectives**

1. Embodying vision, mission and goalsuniversity TikritAnd applying the best educational practices with a focus on ensuring and enhancing quality and performance.

2. **Preparing specialized cadres capable of serving the community and preparing for future specializations.**

3. Disseminating the culture of human diversity in society, transferring knowledge and linguistic skills, writing academic research and creative scientific achievement through activities that focus on the student and the teacher.

4. The college seeks to conclude scientific and cultural cooperation agreements with similar colleges and departments in different colleges to achieve the best practices in the fields of education.

5. Focusing on the educational and moral aspects of all its members and spreading the spirit of dedication, tolerance, commitment and work to serve the nation.

6. Interest in intellectual and cultural development through openness to the experiences of other countries in the fields of Various sciences.

Focus on the educational and moral side of the student and instill a spirit of dedication, tolerance and commitment.

4. **Programmatic accreditation**

nothing

5. **Other external influences**

nothing

6. Program Structure								
comments *	percentage	Study unit	Number of courses	Program Structure				
Basic course		90	90	Institutional Requirements				
			Yes	College Requirements				
			Yes	Department Requirements				
			nothing	Summer training				
				Other				

* Notes may include whether the course is basic or optional.

7. Program Description							
Credit hours		Course name	Course code	Year/Level			
Partical	theoreti cal	Computer		2024-2025 the first class			

8. Expected learning outcomes of the program				
Knowledge				
	Informing students about the importance of computer science and software theories, their uses, and their significance in society.			
Skills				
	Expanding computer and typing skills and applying them in daily uses			
Values	·			

Developing students' ability to participate
Disclosing one's thoughts and feelings about life matters, including the scientific material in computer science.

9. Teaching and learning strategies

Explain the scientific material using colored pens, a blackboard, various educational tools, and practical applications on computers in the science department's laboratories.

2. Write a review paper for each computer application, such as Word and Excel, summarizing the most important ideas presented during the lectures.

3. Link the explanation and discussion from the previous lecture to the new lecture.

10. Evaluation methods Weekly, monthly, daily and end of year exams.

11. Faculty

Faculty members						
Faculty prepara	ntion	Special requirem any)	ents/skills (if	Specializat	ion	Academic Rank
	Staff			private	general	
	Staff			numerical analysis	mathem atics	Teacher

Professional development
Orientation of new faculty members
Professional development for faculty members

12. Acceptance Criteria

13. The most important sources of information about the program

Computer Basics Course (2023) A&M for Digital Service

ttps://www.youtube.com/watch?v=aQp1lt5NHsE

https://harmash.com/tutorials/computer-fundamentals/functions-and-advantages

14. Program development plan

1 -A comparative study of computer science software types and how to leverage these application methods in everyday life.

2- Working to enhance students' skills in computer applications such as Word, Excel, and PowerPoint.

Program Skills Chart

Required learning outcomes of the program															
Valı	ies			Skills				Kno	wledg	e		Essential or optional?	Course name	Course code	Year/Level
A4	A3	A2	A1	B4	B3	B2	B1	A4	A3	A2	A1				
												essential	Computer		2024-2025

• the programme being assessed.

Please tick the boxes corresponding to the individual learning outcomes of

Course Description Form

1.	1. Course name:computer					
Woo	Woord- exel- powerpoint					
2.	Course code:					
3.	Semester/Year: Annual					
Seme	ester system					
4.	Date this description was prepare	ed: / 2025/5/14				
5.	Available attendance forms:					
In-pe	erson only					
6.	Number of study hours (total) / N	Sumber of units (total):				
78Or	ne hour per year.2One hour per we	ek				
7.	Name of the course administrator	c (if more than one name is mentioned)				
The 1	name: Mr. Zineb Hassan Ahmed	Email:Zahmed@edu.tu.iq				
8.	8. Course objectives					
•	••••	1- Providing students with the skill				
•	••••	of application. Statistics and its use in				
•	••••	everyday life				
		2-Skill expansionStatistical analysis				

application								
	rtant Type uses	es						
9. Teaching and learning strategies								
	Stra	tegy						
1 -Providing	ning							
		knowle	edge and	use it in everyday	life.			
	2 -Expanding	reading skill	s to pract	tical application sk	cills.			
3- Explaining	g the most im	portant mode	rn ideas	in computer scien	ce, th			
methods, and	uses.							
10. Course	structure	10 Course structure						
Evaluation	Learning	Name of the u	unit or	Required	Watches	The		
Evaluation method	Learning method	Name of the u topic	ınit or	Required learning	Watches	The week		
Evaluation method	Learning method	Name of the u topic	init or	Required learning outcomes	Watches	The week		
Evaluation method AFor	Learning method	Name of the u topic English	unit or Victor	Required learning outcomes	Watches 2hour	The week		
Evaluation method AFor weekly.	Learning method Explain	Name of the u topic English Poetry	nit or Victor	Required learning outcomes	Watchess 2hour 2hour	The week		
Evaluation method AFor weekly, monthly	Learning method Explain the scientific	Name of the u topic English Poetry	nit or Victor	Required learning outcomes Explain the	Watches 2hour 2hour 2hour	The week123		
Evaluation method AFor weekly, monthly , daily,	Learning method Explain the scientific material	Name of the u topic English Poetry	nit or Victor	Required learning outcomes Explain the scientific material from	Watchess 2hour 2hour 2hour 2hour	The week 1 2 3 4		
Evaluation method AFor weekly, monthly , daily, written	Learning method Explain the scientific material from the	Name of the u topic English Poetry	unit or Victor	Required learning outcomes Explain the scientific material from the blackboard	Watches 2hour 2hour 2hour 2hour 2hour	The week 1 2 3 4 5		
Evaluation method AFor weekly, monthly , daily, written and	Learning method Explain the scientific material from the blackboar	Name of the u topic English Poetry	unit or Victor	Required learning outcomes Explain the scientific material from the blackboard and provide key	Watches 2hour 2hour 2hour 2hour 2hour 2hour	The week 1 2 3 4 5 6		
Evaluation method AFor weekly, monthly , daily, written and end-of-	Learning method Explain the scientific material from the blackboar d and provide	Name of the u topic	nit or Victor	Required learning outcomes	Watches 2hour	The week 1 2 3 4 5 6 7		
Evaluation methodAFor weekly, monthly , daily, written and end-of- year	Learning method Explain the scientific material from the blackboar d and provide key	Name of the u topic	nit or Victor	Required learning outcomes Explain the scientific material from the blackboard and provide key examples. 2 .Write a	Watches 2hour 2hour 2hour 2hour 2hour 2hour 2hour 2hour 2hour 2	The week 1 2 3 4 5 6 7 2		
Evaluation methodAFor weekly, monthly , daily, written and end-of- year exams.	Learning method Explain the scientific material from the blackboar d and provide key examples.	Name of the u topic	nit or Victor	Required learning outcomes Explain the scientific material from the blackboard and provide key examples. 2 .Write a review paper for each	Watches 2hour 2hour 2hour 2hour 2hour 2hour 2hour 2hour	The week 1 2 3 4 5 6 7 8		
Evaluation method AFor weekly, monthly , daily, written and end-of- year exams.	Learning method Explain the scientific material from the blackboar d and provide key examples. 2 .Write a	Name of the v topic	nit or Victor	Required learning outcomes Explain the scientific material from the blackboard and provide key examples. 2 .Write a review paper for each computer	Watches 2hour	The week 1 2 3 4 5 6 7 8 9		
Evaluation method AFor weekly, monthly , daily, written and end-of- year exams.	Learning method Explain the scientific material from the blackboar d and provide key examples. 2 .Write a review	Name of the u topic	nit or Victor	Required learning outcomes Explain the scientific material from the blackboard and provide key examples. 2 .Write a review paper for each computer science	Watchess 2hour 2hour 2hour 2hour 2hour 2hour 2hour 2hour 2hour 2hour	The week 1 2 3 4 5 6 7 8 9 10		

each		summarizing	2hour	11
computer		the most	2hour	12
program		methods	2hour	13
summarizi		presented	2hour	14
ng the		during the	211001	17
most		lectures.	2hour	15
important		3. Link		vacatio
presented		computer	2hour	16
during the		science	2hour	17
lectures.		ideas and	211001	10
3. L		applicatio	2hour	18
computer		henefit	2hour	19
science id		students.	2hour	19
and applications			2hour	20
that bene			2hour	21
students.			2hour	22
			2hour	23
			2hour	24
			2hour	25
			2hour	26
			2hour	27
			2hour	28
			2hour	29
			2hour	30
11. Course Evaluation			J	1
distributionAs follows: 25 ma	rks for monthly and dail	y exams for the first	semester. 2	5 marks

for monthly and daily exams for the second semester. 50 marks for final exams						
12. Learning and teaching resources						
Computer Science Book	Required textbooks (methodology if any)					
	Main References (Sources)					
	Recommended supporting books and references (scientific journals, reports, etc.)					
https://w ww.youtu be.com/w atch?v=J6 aT0aTP_H <u>8</u>	Electronic references, websites					
https://har mash.com/t utorials/co mputer- fundamenta ls/function s-and- advantages						

Ministry Higher Education and Scientific Research Scientific Supervision and Evaluation Authority circleQuality Assurance and Academic Accreditation Accreditation Department



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the signature : Scientific Assistant Name: the date : the signature : Name of the Department Head: the date :

Check the file before Quality Assurance and University Performance Division Name of the Director of the Quality Assurance and University Performance Division: the date

the signature

Dean's approval

1. **Program vision**

Seekingcollege the sciencesTo be one of the leading higher education institutions inuniversity TikritIn the field

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6. Interest in intellectual and cultural development through openness to the experiences of other countries in the fields of Various sciences.

Focus on the educational and moral side of the student and instill a spirit of dedication, tolerance and commitment.

4. **Programmatic accreditation**

nothing

5. **Other external influences**

nothing

6. Program Structure								
comments *	percentage	Study unit	Number of courses	Program Structure				
Basic course		90	90	Institutional Requirements				
			Yes	College Requirements				
			Yes	Department Requirements				
			nothing	Summer training				
				Other				

* Notes may include whether the course is basic or optional.

7. Program Description							
Credit hours		Course name	Course code	Year/Level			
Partical	theoreti cal	Computer		2024-2025 the first class			

8. Expected learning outcomes of the program					
Knowledge					
	Informing students about the importance of computer science and software theories, their uses, and their significance in society.				
Skills					
	Expanding computer and typing skills and applying them in daily uses				
Values					

Developing students' ability to participate
Disclosing one's thoughts and feelings about life matters, including the scientific material in computer science.

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10. Evaluation methods Weekly, monthly, daily and end of year exams.

11. Faculty

Faculty members							
Faculty prepara	ation	Special requirem any)	ents/skills (if	Specializat	ion	Academic Rank	
	Staff			private	general		
	Staff			numerical analysis	mathem atics	Teacher	

Professional development
Orientation of new faculty members
Professional development for faculty members

12. Acceptance Criteria

13. The most important sources of information about the program

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ttps://www.youtube.com/watch?v=aQp1lt5NHsE

https://harmash.com/tutorials/computer-fundamentals/functions-and-advantages

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Program Skills Chart

Required learning outcomes of the program															
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A4	A3	A2	A1	B4	B3	B2	B1	A4	A3	A2	A1				
												essential	Computer		2024-2025
				ļ											

• the programme being assessed.

Please tick the boxes corresponding to the individual learning outcomes of

Course Description Form

1.	Course name:computer						
Woo	Woord- exel- powerpoint						
2.	Course code:						
3.	Semester/Year: Annual						
Seme	ester system						
4.	Date this description was prepare	ed: / 2025/5/14					
5.	Available attendance forms:						
In-pe	erson only						
6.	Number of study hours (total) / Number of units (total):						
78Or	ne hour per year.20ne hour per we	ek					
7.	Name of the course administrator	c (if more than one name is mentioned)					
The 1	name: Mr. Zineb Hassan Ahmed	Email:Zahmed@edu.tu.iq					
8.	Course objectives						
•		1- Providing students with the skill					
•		of application.Statistics and its use in					
•	•••••	everyday life					
		2-Skill expansionStatistical analysis					

			3-clarification Most important Types of statistics, methods and uses					
9. Teachi	ng and learni	ng strategies						
Strategy								
1 -Providing students with the skills to apply computer programming knowledge and use it in everyday life								
	2 -Expanding	reading skill	s to pract	tical application sk	tills.			
3- Explaining the most important modern ideas in computer science, th methods, and uses.								
10. Course structure								
10. Course	e structure							
Evaluation method	e structure Learning method	Name of the u topic	ınit or	Required learning outcomes	Watches	The week		
IU. Course Evaluation method	e structure Learning method	Name of the u topic English	unit or Victor	Required learning outcomes	Watches 2hour	The week		
IU. Course Evaluation method AFor weekly.	E structure Learning method Explain	Name of the u topic English Poetry	unit or Victor	Required learning outcomes	Watches Watches 2hour	The week12		
Evaluation method AFor weekly, monthly	E structure Learning method Explain the scientific	Name of the u topic English Poetry	nit or Victor	Required learning outcomes Explain the	Watches 2hour 2hour 2hour	The week123		
IU. Course Evaluation method AFor weekly, monthly , daily,	Explain the scientific material	Name of the u topic English Poetry	nit or Victor	Required learning outcomes Explain the scientific material from	Watches Watches 2hour 2hour 2hour 2hour	The week 1 2 3 4		
IU. Course Evaluation method AFor weekly, monthly , daily, written	Explain the scientific material from the	Name of the u topic English Poetry	unit or Victor	Required learning outcomes Explain the scientific material from the blackboard	Watches 2hour 2hour 2hour 2hour 2hour 2hour	The week 1 2 3 4 5		
IU. Course Evaluation method AFor weekly, monthly , daily, written and	Explain the scientific material from the blackboar d and	Name of the u topic English Poetry	nit or Victor	Required learning outcomes Explain the scientific material from the blackboard and provide key examples.	Watches 2hour 2hour 2hour 2hour 2hour 2hour	The week 1 2 3 4 5 6		
IU. Course Evaluation method AFor weekly, monthly , daily, written and end-of-	Explain the scientific material from the blackboar d and provide	Name of the u topic English Poetry	nit or Victor	Required learning outcomes Explain the scientific material from the blackboard and provide key examples. 2. Write a	Watches 2hour 2hour 2hour 2hour 2hour 2hour 2hour 2hour 2hour	The week 1 2 3 4 5 6 7		
IU. Course Evaluation method AFor weekly, monthly , daily, written and end-of- year	Explain the scientific material from the blackboar d and provide key examples	Name of the u topic English Poetry	nit or Victor	Required learning outcomes Explain the scientific material from the blackboard and provide key examples. 2 .Write a review paper	Watches 2hour 2hour 2hour 2hour 2hour 2hour 2hour 2hour	The week 1 2 3 4 5 6 7 8		
IU. Course Evaluation method AFor weekly, monthly , daily, written and end-of- year exams.	Explain the scientific material from the blackboar d and provide key examples. 2 .Write a	Name of the u topic English Poetry	nit or Victor	Required learning outcomes Explain the scientific material from the blackboard and provide key examples. 2 .Write a review paper for each	Watches 2hour	The week 1 2 3 4 5 6 7 8 9		
IU. Course Evaluation method AFor weekly, monthly , daily, written and end-of- year exams.	Explain the scientific material from the blackboar d and provide key examples. 2 .Write a review	Name of the u topic	nit or Victor	Required learning outcomes Explain the scientific material from the blackboard and provide key examples. 2 .Write a review paper for each computer science	Watches 2hour	The week 1 2 3 4 5 6 7 8 9 10		

each		summarizing	2hour	11
computer		the most	2hour	12
program		methods	2hour	13
summarizi		presented during the	2hour	14
ng the			211001	17
most		lectures.	2hour	15
important		3. Link		vacatio
presented		computer	2hour	16
during the		science	2hour	17
lectures.		ideas and	211001	10
3. Li		applicatio	2hour	18
computer		henefit	2hour	19
science ide		students.	2hour	19
and applications			2hour	20
that bene			2hour	21
students.			2hour	22
			2hour	23
			2hour	24
			2hour	25
			2hour	26
			2hour	27
			2hour	28
			2hour	29
			2hour	30
11. Course Evaluation		L	ļ	ļ
distributionAs follows: 25 ma	rks for monthly and dail	y exams for the first	semester. 2	5 marks

for monthly and daily exams for the second semester. 50 marks for final exams						
12. Learning and teaching resources						
Computer Science Book	Required textbooks (methodology if any)					
	Main References (Sources)					
	Recommended supporting books and references (scientific journals, reports, etc.)					
https://w ww.youtu be.com/w atch?v=J6 aT0aTP_H <u>8</u>	Electronic references, websites					
https://har mash.com/t utorials/co <u>mputer-</u> <u>fundamenta</u> <u>ls/function</u> <u>s-and-</u> <u>advantages</u>						