Republic of Iraq
Ministry of Higher Education & Scientific Research
Supervision and Scientific Evaluation Directorate
Quality Assurance and Academic Accreditation

Academic Program Specification Form for the Academic

University: Basrah
College: Engineering
Department: Petroleum Engineering
Date of Form Completion: 2021

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TEMPLATE FOR PROGRAMME SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

PROGRAM SPECIFICATIO

This program specification provides a concise summary of the main features of the program and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It is supported by a specification for each course that contributes to the program.

1. Teaching Institution	University of Basrah
2. University Department/Centre	Petroleum Eng. Department
3. Program Title	Petroleum Eng.
4. Title of Final Award	Bachelor
5. Modes of Attendance offered	Semester
6. Accreditation	
7. Other external influences	
8. Date of production/revision of this specification	2021
9. Aims of the Program	
1. Preparing and qualifying specialized engineers to meet the requirements of the labor market in the private and public sectors in petroleum engineering through diversification of methods of learning and education and training students to apply the acquired knowledge and skills to solve real problems.	
2. Providing distinguished academic programs in the field of petroleum engineering, both theoretical and practical, that comply with international standards of academic quality and meet the needs of the labor market.	
3. Encouraging and developing scientific research in the fields of petroleum engineering in Fundamental of Petroleum Engineering, Well logging, Production Engineering, Petroleum Drilling Engineering and Petroleum Reservoir Engineering.	

10. Learning Outcomes, Teaching, Learning and Assessment Methods

A. Knowledge and Understanding

A1. Clarify the basic concepts of petroleum engineering and its applications in petroleum and industrial fields.

A2. Acquisition of the skill in dealing with and addressing problems through knowledge and use of computer systems.

A3. Acquisition of basic skills in petroleum engineering (building materials industry, engineering surveying...).

A4. Gaining experience in engineering project management.

B. Subject-specific skills

B1. The ability to design simple and advanced planning to discover the petrol reservoir.

B2. The ability to think about addressing work-related problems.

B3. Writing scientific and administrative reports, reading charts and analyzing them.

Teaching and Learning Methods

1. Explanation and clarification through lectures.
2. The method of displaying scientific materials on display devices: data show, smart boards, and plasma screens.
3. Self-learning through homework and mini-exams within the lectures.
4. Laboratories.
5. Graduation projects.
6. Scientific visits.
7. Seminars held in the department.
8. Summer training.

Assessment methods

1. Short exams (quiz).
2. Homework.
3. Semester and final exams for theoretical and practical subjects.
4. Interaction within the lecture.
5. Reports.

C. Thinking Skills

C1. Attention: Arousing the students' attention by asking interactive questions in the class

C2. Response: Follow-up of the student's interaction with the material displayed on the screen

C3. Attention: Follow up the interest of the student who interacted more with the presented material, by increasing this interaction.

C4. Forming the direction: meaning that the student is sympathetic to the presentation and may have an opinion about the direction of the presented topic and defend it.

C5. Formation of value behavior: meaning that the student reaches the top of the emotional ladder, so that he has a stable level in the lesson and does not become lazy or fidgety.

Teaching and Learning Methods

Assessment methods

• Active participation in the classroom is evidence of the student's commitment and responsibility.
• Commitment to the deadline in submitting the duties and research required of the student to submit them.
• The quarterly and final exams express commitment and cognitive and skill achievement

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Develop the student's ability to deal with the development in building materials and techniques.

D2. Develop the student's ability to deal with information available on the Internet.

D3. Develop the student's ability to dialogue and discussion.

Teaching and Learning Methods

Assessment Methods

11. Program Structure				12. Awards and Credits
Level/Year	Course or Module	Course or Module	Credit rating	

	Code	Title		
First		English Language	2	Bachelor Degree Requires (x) credits
Second		Applied Mathematics	4	

13. Personal Development Planning
14. Admission criteria
Average: not less than 90% Age: no more than 25 years old Number: about 100 students annually
15. Key sources of information about the programme
1. The websites of Iraqi and foreign universities. 2. The workshops held by the Ministry of Higher Education in addition to the Ministry's standards.

Curriculum Skills Map																	
please tick in the relevant boxes where individual Programme Learning Outcomes are being assessed																	
				Programme Learning Outcomes													
Year / Level	Course Code	Course Title	Core (C) Title or Option (O)	Knowledge and understanding				Subject-specific skills				Thinking Skills				General and Transferable Skills (or) Other skills relevant to employability and personal development			
				A1	**A2**	**A3**	**A4**	**B1**	**B2**	**B3**	**B4**	**C1**	**C2**	**C3**	**C4**	**D1**	**D2**	**D3**	**D4**
First		English		X	X	X	X	X	X	X	X	X	X	X		X	X	X	
Fourth		Applied Mathematics I		X	X	X	X	X	X	X	X	X	X	X		X	X	X	
		Applied Mathematics II		X	X	X	X	X	X	X	X	X	X	X		X	X	X	

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

1. Teaching Institution	University of Basrah
2. University Department/Centre	Petroleum Engineering Department
3. Course title/code	English Language
4. Programme to which it contributes	
5. Modes of Attendance offered	Daily Attendance
6. Semester/Year	First year/ first semester
7. Number of hours tuition (total)	30 hour
8. Date of production/revision of this specification	2021
9. Aims of the Course	
This course is designed to enable the students to achieve academic oral and written communication to the standard required at university level. The course integrates all the language skills with emphasis on writing, and it stimulates students' imagination, and promotes personal expression. Students, in this course, are trained to apply critical thinking skills to a wide range of challenging subjects from diverse academic disciplines. Course activities include writing various types of academic essays, acquiring advanced academic vocabulary, and getting involved in group discussions and debates. In addition, the course also includes other skills to consolidate the main skills, such as further readings and use of the Blackboard Suite.	

10· Learning Outcomes, Teaching, Learning and Assessment Method

A- Knowledge and Understanding

A1. Clarify the basic concepts of English language by learning the English grammar.
A2. Acquisition of skills in Writing and Reading.

B. Subject-specific skills

B1. The ability to speak.
B2. The ability to read the texts in English language.
B3. Writing detailed scientific reports for engineering plans.
B4. The ability to gain experience in dealing with executive engineering plans.

Teaching and Learning Methods

• Readings, self-learning, panel discussions.
• Exercises and activities in the lecture.
• Homework.
• Directing students to some websites to benefit and develop capabilities.
• Conducting seminars to explain and analyze a specific issue and find solutions to it.

Assessment methods

• Interaction within the lecture.
• Homework and reports.
• Quizzes.
• Semester and final exams.

C. Thinking Skills

C1. Attention: Arousing the students' attention by asking interactive questions in the class
C2. Response: Follow-up of the student's interaction with the material displayed on the screen
C3. Attention: Follow up the interest of the student who interacted more with the presented material, by increasing this interaction.
C4. Forming the direction: meaning that the student is sympathetic to the presentation and may have an opinion about the direction of the presented topic and defend it.
C5. Formation of value behavior: meaning that the student reaches the top of the emotional ladder, so that he has a stable level in the lesson and does not become lazy or fidgety.

Teaching and Learning Methods

Assessment methods

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. developing the student's ability to perform duties and deliver them on time
D2. Logical and programmatic thinking to find solutions to various problems
D3. Develop the student's ability to dialogue and discussion
D4. Develop the student's ability to deal with modern technology

11. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2			Past simple tens	Class work
2	2			Past continuous tens	Class work
3	2			Past perfect tens	Class work
4	2			Present simple tens	Class work
5	2			Present continuous tens	Class work
6	2			Present perfect tens	Class work
7	2			Future simple tens	Class work
8	2			Future continuous tens	Class work
9	2			Future perfect tens	Class work
10	2			Mid Term Exam	Exam marks
11	2			Punctuation	Class work
12	2			Simple Sentences	Class work
13	2			Compound Sentences	Class work
14	2			Text Writing	Class work
15	2			Exam	Exam marks

12. Infrastructure	
Required reading: · Grammar · Reading · Writing	
Special requirements (include for example workshops, periodicals, IT software, websites)	**English learning**
Community-based facilities (include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	
Maximum number of students	

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

1. Teaching Institution	University of Basrah
2. University Department/Centre	Petroleum Engineering Department
3. Course title/code	Applied Mathematics I
4. Programme to which it contributes	
5. Modes of Attendance offered	Daily Attendance
6. Semester/Year	First year/ second semester
7. Number of hours tuition (total)	60 hour
8. Date of production/revision of this specification	2021
9. Aims of the Course	
To improve the knowledge in applied mathematics for Engineering studying.	

10· Learning Outcomes, Teaching, Learning and Assessment Method

A- Knowledge and Understanding

A1. Clarify the basic concepts of engineering mathematics by defining the methods of solutions and tools.

A2. Acquisition of skills in dealing with on-site engineering problems.

A4. Gain a basic understanding of engineering designs and their various industrial and construction applications.

B. Subject-specific skills

B1. The ability to solve the problems.

B2. The ability to think about finding dimensions and deducing missing shapes for any structure or geometric shape.

B3. Writing detailed scientific reports for engineering plans.

B4. The ability to gain experience in dealing with executive engineering plans.

Teaching and Learning Methods

• Readings, self-learning, panel discussions.
• Exercises and activities in the lecture.
• Homework.
• Directing students to some websites to benefit and develop capabilities.
• Conducting seminars to explain and analyze a specific issue and find solutions to it.

Assessment methods

• Interaction within the lecture.
• Homework and reports.
• Quizzes.
• Semester and final exams.

C. Thinking Skills

C1. Attention: Arousing the students' attention by asking interactive questions in the class

C2. Response: Follow-up of the student's interaction with the material displayed on the screen

C3. Attention: Follow up the interest of the student who interacted more with the presented material, by increasing this interaction.

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C5. Formation of value behavior: meaning that the student reaches the top of the emotional ladder, so that he has a stable level in the lesson and does not become lazy or fidgety.

Teaching and Learning Methods

Assessment methods

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. developing the student's ability to perform duties and deliver them on time

D2. Logical and programmatic thinking to find solutions to various problems

D3. Develop the student's ability to dialogue and discussion

D4. Develop the student's ability to deal with modern technology

11. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1				Vectors	Class work
2					Class work
3					Class work
4				Vector-valued functions	Class work
5					Class work
6					Class work
7				Partial differentiation	Class work
8					Class work
9					Class work
10					Class work
11				Mid Term Exam	Exam marks
12				Double integral	Class work
13					Class work
14				Triple integral	Class work
15					Class work

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	
Maximum number of students	

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

1. Teaching Institution	University of Basrah
2. University Department/Centre	Petroleum Engineering Department
3. Course title/code	Applied Mathematics I
4. Programme to which it contributes	
5. Modes of Attendance offered	Daily Attendance
6. Semester/Year	Second year/ second semester
7. Number of hours tuition (total)	60 hour
8. Date of production/revision of this specification	2021
9. Aims of the Course	
To improve the knowledge in applied mathematics for Engineering studying.	

10· Learning Outcomes, Teaching, Learning and Assessment Method

A- Knowledge and Understanding

A1. Clarify the basic concepts of engineering mathematics by defining the methods of solutions and tools.

A2. Acquisition of skills in dealing with on-site engineering problems.

A4. Gain a basic understanding of engineering designs and their various industrial and construction applications.

B. Subject-specific skills

B1. The ability to solve the problems.

B2. The ability to think about finding dimensions and deducing missing shapes for any structure or geometric shape.

B3. Writing detailed scientific reports for engineering plans.

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- Readings, self-learning, panel discussions.
- Exercises and activities in the lecture.
- Homework.
- Directing students to some websites to benefit and develop capabilities.
- Conducting seminars to explain and analyze a specific issue and find solutions to it.

Assessment methods

- Interaction within the lecture.
- Homework and reports.
- Quizzes.
- Semester and final exams.

C. Thinking Skills

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Teaching and Learning Methods

Assessment methods

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. developing the student's ability to perform duties and deliver them on time

D2. Logical and programmatic thinking to find solutions to various problems

D3. Develop the student's ability to dialogue and discussion

D4. Develop the student's ability to deal with modern technology

11. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	4			Differential Equations	Class work
2	4				Class work
3	4				Class work
4	4				Class work
5	4			Fourier Series	Class work
6	4				Class work
7	4				Class work
8	4				Class work
9	4			Mid Term Exam	Exam Marks
10	4			Sequences and series	Class work
11	4				Exam marks
12	4				Class work
13	4				Class work
14	4				Class work
15	4				Class work

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	
Maximum number of students	