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 College of Basic Education/ Department of Mathematics

2024

Academic Program Description Form

University Name: Tikrit University

Faculty/Institute: Basic education College/ Al-Sharqat

Scientific Department: Department of Mathematics

Name of the academic or professional program: Mathematics

Final Certificate Name: Bachelor's degree in sciences of Mathematics

Academic System: By Courses

Description Preparation Date:18 /9 / 2024

File Completion Date: 18 /9 / 2024

Signature:

Head of Department Name:

Dr. Ayad Hamad khalaf

Date: 18/9/2024

Signature:

Scientific Associate Name:

Dr Saad Jerges Saaed

Date: ٢٠٢٤/٩/١٨

The file is checked by: Dr. Sarab Abdusattar Mohamed

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date: 2024/9/18

Signature:

Approval of the Dean

18/9/2024

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.

Course Description: 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.

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

Program Mission: 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.

Curriculum Structure: 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 extra-curricular activities to achieve the learning outcomes of the program.

Program Vision .1

Mathematics is one of the most important foundations of applied and scientific sciences in general, as most sciences are built on its foundations and rules. Therefore, those who teach mathematics must cific foundations and rules, while keeping be equipped with mathematical sciences according to spe The department seeks to advance knowledge in .pace with the development of mathematical sciences all its forms, whether pure or applied mathematics, to qualify them to in the field of mathematics . encourage them to develop their abilities and capabilities serve society and

Program message .2

Preparing qualified university teachers in the field of specialization and providing them with the principles of knowledge, scientific and logical thinking, scientific research skills in mathematics, and in addition to , ociety in the field of workthe skills necessary for future communication with s providing the student with a set of sciences and knowledge that complete the teacher's culture in .general, including cultural requirements, educational requirements, computer sciences, and others

objectives Program .3

أ- Raising the academic and cognitive level of the mathematics student and preparing him as a university teacher and researcher
ب-Providing the Ministry of Education with its needs of university teachers and educators specializing in mathematics
ت-Keeping pace with scientific developments in the field of mathematics to enable the department to compete with other departments
ث-Learn various methods and approaches to help students master mathematical skills .and teach mathematics
ج-ecialized in mathematics by teaching them the skills and Preparing students sp .foundations of mathematics
ح-Providing graduates with sufficient personal skills to contribute to serving the .community, especially with organizations
خ-o communicate with other scientific Providing students with the skills necessary t .and engineering disciplines
د- .pure sciences Enabling students to master the principles of
ذ- and some basic terms and concepts related to , scientific concepts Reinforcing mathematics
ر- .natural sciences are based Understanding the theoretical foundations on which the
ز- .and learning Providing the graduate with skills and methods in teaching

Program accreditation .4
for National Council /Ministry of Higher Education and Scientific Research Accreditation(CAEP)

Other external influences .5
Ministry of / Mathematics Curriculum Development Project in Iraqi Universities Higher Education and Scientific Research to schools Application in schools for two months, field visits

Structure Program .6

Program Structure	Number of courses	Study unit	percentage	comments
Institutional Requirements	**12**	**22**	**%23**	
College Requirements	**11**	**28**	**%27**	
Department Requirements	**32**	**92**	**%43**	
Summer training	**1**	**12**	**%7**	
Other				

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

Program Description .7

Credit hours		Course name	Course code	Year/Level
practical	theoretical			
	1	human rights	Cult112	First/First Semester
	2	History of mathematics	Math111	
	2	Arabic	Cut 110	
2	1	Computer	Math113	
	3	Basics of Psychology		
1	3	differentiation	Math110	
	2	probability		
	2	Basics of mathematics	Math113	
2	1	(Computer (major	Cult122	First/Second Semester
	2	English language	Cult121	
	3	Fundamentals and principles of basic education		
	2	Islamic Education/Civilization	Cult120	
1	3	integration	Math123	
	3	Number theory	Math121	
	3	Matrices	Math122	
1	2	Basics of mathematics	Math120	
		Arabic	Cult 230	Second/First Semester
		English language		
2	1	Computer	Cult231	
1	3	Linear algebra	Math232	

	3	Counseling and mental health	Edu231	
1	3	Advanced Differential	Math230	
1	3	Advanced possibilities	Math231	
	1	Democracy	Cult245	
2	1	Computer (specialized)	Math243	
	3	Educational Statistics (Specialist)	Edu241	
	2	Educational Psychology		Second/Second Semester
1	3	Advanced Integration	Math241	
	3	Engineering	Math243	
		Group theory	Math354	
	2	Arabic	350Cult	
1	3	Ordinary differential equations	Math353	
	3	Research Methods	Edu350	
	2	Educational techniques	Edu351	Third/First Semester
1	3	Numerical analysis	Math350	
	2	Mathematical thinking	Math351	
	2	Tests and Measurements	Math352	
2	1	Computer	Math355	
1	1	Computer		Third/Second Semester
	2	Measurement and Evaluation		

	2	General teaching methods		
1	2	Episodes		
4		Science education		
2	2	Mathematical analysis		
	3	Specialized teaching methods		
	3	Structure theory		
1	1	Computer	Cult770	
	2	Arabic	Cult471	
	2	Curricula and textbooks	Edu470	
	2	Educational administration and supervision	Edu471	Fourth/First Semester
2	2	Topology	Math471	
1	2	Linear programming	Math470	
2	2	Contractual analysis	Math472	
	3	Teaching methods	Math473	
	3	Research project	Math474	
	12	Science Education (Application)	Edu480	
		Graduation research project	Math480	Fourth/Second Semester

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

Learning Outcome Statement 3	Learning Outcomes 3
Values	
Learning Outcome Statement 4	Learning Outcomes 4
Learning Outcome Statement 5	Learning Outcomes 5
Teaching and learning strategies .9	
Evaluation methods .10	
- Daily and monthly oral and written exams - and extracurricular activities Daily homework	
Faculty .11	
Faculty members	

Faculty preparation		**Requirements/Skills (if any)**	**Specialization**		**Academic Rank**
lecturer	angel		private	general	
	1		Optimization and intelligent techniques	Computational mathematics	Teacher
	1		Numerical examples	Computational mathematics	Teacher
	1		differential topology	mathematics	Assistant Professor
	1		Applied mathematics	mathematics	Assistant Professor
	1		Engineering Geology	geology	assistant professor
	1		Political science	Political science	assistant professor
	1		business management	administration	Assistant Professor

	1		business management	administration	Assistant Professor
	1		Agricultural guidance	agriculture	Assistant Professor
	1		Food Science	agriculture	Assistant Professor

Professional development
Orientation of new faculty members
up by -Mandatory and developmental courses, teaching qualifications, follow experienced professors and evaluation
Professional development for faculty members
obtain higher degrees, write research, use modern scientific Encouraging people to .references, and keep up with technical developments

Acceptance Criteria .12
central
The most important sources of information about the program .13
Universities in And its applications , Internet network on The program Link _ Similar. and performance Quality Sections Established by that Training Courses _ Iraq in And colleges Institutes various in The program around University - .Administrative and scientific data
Plan Program Development .14
Developing skills for teachers in scientific and educational courses and developing

study materials and curricula

Program Skills Chart															
Required learning outcomes of the program															
Values				Skills				Knowledge				Essential or option ?al	Course name	Course code	Year/Level
A4	A3	A2	A1	B4	B3	B2	B1	A4	A3	A2	A1				The first
√	√	√	√	√	√	√	√	√	√	√	√	essential	human rights	Cult112	
√	√	√	√	√	√	√	√	√	√	√	√	essential	History of mathematics	Math111	The first
√	√	√	√	√	√	√	√	√	√	√	√	essential	Arabic	Cut110	
√	√	√	√	√	√	√	√	√	√	√	√	essential	Computer	Math113	first The
√	√	√	√	√	√	√	√	√	√	√	√	essential	Basics of Psychology		
√	√	√	√	√	√	√	√	√	√	√	√	essential	differentiation	Math110	The first
√	√	√	√	√	√	√	√	√	√	√	√	essential	probability		
√	√	√	√	√	√	√	√	√	√	√	√	essential	Basics of mathematics	Math113	The first
√	√	√	√	√	√	√	√	√	√	√	√	essential			The first
√	√	√	√	√	√	√	√	√	√	√	√	essential	Computer (major)	Cult122	The first
√	√	√	√	√	√	√	√	√	√	√	√	essential	English language	Cult121	The first
√	√	√	√	√	√	√	√	√	√	√	√	essential	Fundamentals and principles of basic education		The first
√	√	√	√	√	√	√	√	√	√	√	√	essential	Islamic Education/Civilization	Cult120	The first
√	√	√	√	√	√	√	√	√	√	√	√	essential			The first
√	√	√	√	√	√	√	√	√	√	√	√	essential	integration	Math123	The first
√	√	√	√	√	√	√	√	√	√	√	√1	essential	Number theory	Math121	The first
√	√	√	√	√	√	√	√	√	√	√	√	essential	Matrices	Math122	The first

√	√	√	√	√	√	√	√	√	√	√	√	essential	Basics of mathematics	Math 120	The first
√	√	√	√	√	√	√	√	√	√	√	√	essential	Arabic	Cult 230	Second
√	√	√	√	√	√	√	√	√	√	√	√	essential	English language		Second
√	√	√	√	√	√	√	√	√	√	√	√	essential	Computer	Cult2 31	Second
√	√	√	√	√	√	√	√	√	√	√	√	essential	Linear algebra	Math 232	Second
√	√	√	√	√	√	√	√	√	√	√	√	essential	Counseling and health mental	Edu23 1	Second
√	√	√	√	√	√	√	√	√	√	√	√	essential	Advanced Differential	Math 230	Second
√	√	√	√	√	√	√	√	√	√	√	√	essential	Advanced possibilities	Math 231	Second
√	√	√	√	√	√	√	√	√	√	√	√	essential	Democracy	Cult2 45	Second
√	√	√	√	√	√	√	√	√	√	√	√	essential	Computer (specialized)	Math 243	Second
√	√	√	√	√	√	√	√	√	√	√	√	essential	Educational Statistics (Specialist)	Edu24 1	Second
√	√	√	√	√	√	√	√	√	√	√	√	essential	Educational Psychology		Second
√	√	√	√	√	√	√	√	√	√	√	√	essential	Advanced Integration	Math 241	Second
√	√	√	√	√	√	√	√	√	√	√	√	essential	Engineering	Math 243	Second
√	√	√	√	√	√	√	√	√	√	√	√	essential	Group theory	Math 354	Third
√	√	√	√	√	√	√	√	√	√	√	√	essential	Arabic	350Cu lt	Third
√	√	√	√	√	√	√	√	√	√	√	√	essential	Ordinary differential equations	Math 353	Third
√	√	√	√	√	√	√	√	√	√	√	√	essential	Research Methods	Edu35 0	Third
√	√	√	√	√	√	√	√	√	√	√	√	essential	Educational techniques	Edu35 1	Third
√	√	√	√	√	√	√	√	√	√	√	√	essential	Numerical analysis	Math 350	Third
√	√	√	√	√	√	√	√	√	√	√	√	essential	Mathematical thinking	Math 351	Third
√	√	√	√	√	√	√	√	√	√	√	√	essential	Tests and Measurements	Math 352	Third
√	√	√	√	√	√	√	√	√	√	√	√ 1	essential	Computer	Math 355	Third
√	√	√	√	√	√	√	√	√	√	√	√	essential	Computer		Third

√	√	√	√	√	√	√	√	√	√	√	√	essential	Measurement and Evaluation		Third
√	√	√	√	√	√	√	√	√	√	√	√	essential	General teaching methods		Third
√	√	√	√	√	√	√	√	√	√	√	√	essential	Episodes		Third
√	√	√	√	√	√	√	√	√	√	√	√	essential	Science education		Third
√	√	√	√	√	√	√	√	√	√	√	√	essential	Mathematical analysis		Third
√	√	√	√	√	√	√	√	√	√	√	√	essential	Specialized teaching methods		Third
√	√	√	√	√	√	√	√	√	√	√	√	essential	Structure theory		Third
√	√	√	√	√	√	√	√	√	√	√	√	essential	Computer	Cult770	Fourth
√	√	√	√	√	√	√	√	√	√	√	√	essential	Arabic	Cult471	Fourth
√	√	√	√	√	√	√	√	√	√	√	√	essential	Curricula and textbooks	Edu470	Fourth
√	√	√	√	√	√	√	√	√	√	√	√	essential	Educational administration and supervision	Edu471	Fourth
√	√	√	√	√	√	√	√	√	√	√	√	essential	Topology	Math 471	Fourth
√	√	√	√	√	√	√	√	√	√	√	√	essential	Linear programming	Math 470	Fourth
√	√	√	√	√	√	√	√	√	√	√	√	essential	Contractual analysis	Math 472	Fourth
√	√	√	√	√	√	√	√	√	√	√	√	essential	Teaching methods	Math 473	Fourth
√	√	√	√	√	√	√	√	√	√	√	√	essential	Research project	Math 474	Fourth
√	√	√	√	√	√	√	√	√	√	√	√	essential	Science Education (Application)	Edu480	Fourth
√	√	√	√	√	√	√	√	√	√	√	√	essential	Graduation research project	Math 480	Fourth

learning outcomes of the Please tick the boxes corresponding to the individual*
.programme being assessed

Course Description Form

Course name .1	
Human rights and democracy	
Course code .2	
Semester/Year .3	
Course system	
Date this description was prepared .4	
/1/10/2024	
/attendance Available forms of .5	
person classroom lectures-In	
(Number of study hours (total .6	
Number of hours (total) 24 hours Number of units 2 /	
(Name of the course supervisor (if more than one name is mentioned .7	
:Email **A.M. Imad Wakaa Ajeel** :Nameemad1983@tu.edu.iq	
Course objectives .8	
• of Preparing a generation aware of the issue . democracy and human rights • . Developing the student's cultural awareness • Keeping the student up to date with the experiences of nations and learning about the principles of democracy and most important .human rights and how to practice them	Subject objectives
Teaching and learning strategies .9	
	Strategy

Course Structure .10					
Evaluation method	**Learning method**	**Name of the unit or topic**	**Required learning**	**Watches**	**The week**

			outcomes		
Classroom performance	The lecture	**Definition of human rights**		**2**	**October 1**
Classroom performance	The lecture	**Characteristics of human rights**		**2**	**October 2**
Classroom performance	The lecture	**Human rights in Islamic law**		**2**	**October 3**
Classroom performance and tests	The lecture	**Human Rights Categories**		**2**	**October 4**
Classroom performance	The lecture	**collective human rights**		**2**	**November 1**
Classroom performance	The lecture	**Human rights corruption and**		**2**	**November 2**
Classroom performance	The lecture	**Types of governments**		**2**	**November 3**
Classroom performance and tests	The lecture	**Royal and republican government**		**2**	**November 4**
Classroom performance	The lecture	**democratic government**		**2**	**December 1**
Classroom performance	The lecture	**The emergence of democracy**		**2**	**December 2**
Classroom performance	The lecture	**Types of democracy**		**2**	**December 3**
Classroom performance	The lecture	**Elections**		**2**	**December 4**

Course Evaluation .11
grade is distributed out of 100 according to the tasks assigned to the student, The .such as daily preparation, daily, oral, monthly and written exams, reports, etc 1- degrees daily preparation 10 2- monthly exam grades 10 3- degrees reports 10 4- daily exam grades 10

5- End of Course Exam 60	
Learning and teaching resources .12	
Introduction to -Firas Gerges Khalaf -1 2011 -the Study of Human Rights Human Rights, -Maher Saleh Allawi .3 2009 -Children and Democracy	Required textbooks (methodology if (any
Political Human -Sager Nasser Hamad .1 AD 2005 . Rights Sinjari, Humanitarian -Salwan Rashid Al.2 Intervention in International Law 2005	(Sources) Main References
troduction to In -Firas Gerges Khalaf -1 1 2011 -the Study of Human Rights Human Rights, -Maher Saleh Allawi .3 2009 -Children and Democracy Political Human -Sager Nasser Hamad .1 Rights. 2005 AD Sinjari, Humanitarian -Salwan Rashid Al.2 Intervention in International Law 2005	Recommended supporting books and references (scientific journals, (...reports
Website of the College of Law and the College of Political Science / Tikrit University	tronic references, websitesElec

Course Description Form

(Operating System) Computer :Course name .1
:Course code .2
Semester/Year: Course System .3
:Date of preparation of this description . 9/17/2024
person classroom lectures-Available forms of attendance: in .5
units 3 :(hours / Number of units (total 45 :(Number of study hours (total .6
(one name is mentioned Name of the course supervisor (if more than .7
:M.M. Firas Ali Abdullah Email firas.abdullah@tu.edu.iq
Course objectives .8 Defining the operating system and its basic functions and identifying the -1 different types of operating systems such asWindows. Understanding how the operating system manages resources such as -2 .memory, processor, and input and output devices Learn about file systems and how to organize storage management -3 .strategies methods of Study the importance of security in the operating system and -4 .protecting data and resources Acquire basic programming skills by developing operating systems or -5 .applications based on operating systems

1- Using different teaching methods, including lectures, cooperative learning, and ,solving-discussion, problem .others	Strategy

Course Structure .10

Evaluation method	Learning method	Required learning outcomes	Name of the unit or topic	Watches	The week

Classroom performance	The lecture and discussion	Knowledge and of understanding computer definition and computer generations	Definition of computer and introduction to computer	3	the first
Classroom performance	The lecture and discussion	Knowledge and understanding of the material value of computer types eand softwar	Learn about the computer and its hardware and software components	3	the second
Classroom performance	The lecture and discussion	Knowledge and understanding of computer interface parts, shutdown methods and restart button	Learn about the computer interface and how to shut down and restart .the computer	3	the third
Classroom performance	The lecture and discussion	Knowledge and understanding windows and how to open them	Dealing with windows, changing their properties, and controlling the display of their contents	3	Fourth
Classroom performance	The lecture and discussion	Knowledge and understanding of all contents in the right click menu	Right click menu on desktop	3	Fifth
Classroom performance	The lecture and discussion	Learn how to change the desktop interface, icons on the desktop, taskbar, andstart menu.	Desktop, its contents, taskbar, andstart menu	3	Sixth
			First month exam	3	Seventh
Classroom performance	The lecture and discussion	Knowledge and understanding of how to create a folder through the icon by right clicking on the button, then on New, then on folder	Display properties, create folder and delete it	3	The eighth
Classroom performance	The lecture and discussion	knowledge and understanding The this list basics of	Shortcut configuration 1	3	Ninth

Classroom performance	The lecture and discussion	knowledge and understanding	Clear the Recycle Bin and how to restore deleted items to their original state	3	tenth
Classroom performance	The lecture and discussion	Understand how to save a folder, open a file, copy, print and send through shortcuts or the .click menu-right	,Write, save, open copy, print and send documents	3	eleventh
Classroom performance	The lecture and discussion	knowledge and understanding	My Computer window	3	twelfth
Classroom performance	The lecture and discussion	knowledge and understanding	Getting to know Window Explorer Control Panel window	3	thirteenth
Classroom performance	The lecture and discussion	Knowledge and understanding of how to insert a disk and load data onto the disk as well as flash and get rid of viruses	Dealing withCD, Flash, Printing and Viruses	3	fourteenth
			Second month exam	3	fifteenth

Course Evaluation .11	
The second .(the practical exam is (5 and (The first month exam is (1.0 Attendance, daily .(the practical exam is (5 and (month exam is (1.0 exam, participations and assignments are 10.... We extract from them .the effort score from 40 of 60 Final written exam .The final grade is 100	
Learning and teaching resources .12	
Yatamzi, J.A. (2018). Computer and Programming Basics: A Textbook in Arabic. Lulu.com 1	Required textbooks (methodology if any)
books Different from Internet SPSS 20 version	(Main References (Sources

Asttal, & Dr. Ibrahim Hamed. -Al The extent of availability of .(2018) computer skills in teaching mathematics among primary school he teachers in UNRWA schools in t Gaza Strip from their point of view.	Recommended supporting books and references (...scientific journals, reports)
	Electronic references, websites

Course Description Form

Developmental Psychology :Course name .1
:Course code .2
Semester/Year: Course System .3
:Date of preparation of this description .4
27/9/2024
person classroom lectures-Available forms of attendance: in .5
units 3 :(hours / Number of units (total 45 :(Number of study hours (total .6
(Name of the course supervisor (if more than one name is mentioned .7
:Email Dr. Saber Taha Yassin .Prof .Asst :Namesapr87@tu.edu.iq
:The course aims to achieve the following : Course objectives .8 **1. The student should know psychology** **2. .The student analyzes the behavior of students** **3. To apply the basics of psychology in classroom control** **4. .student distinguishes between individual differences The** **5. To enhance students' achievement according to psychological data** **6. .To assess the student's condition and developmental changes**

2- Using different teaching methods, including lectures, ,solving, cooperative learning-discussion, problem .and others ,brainstorming	Strategy

Course Structure .10

Evaluation method	Learning method	Required learning outcomes	Name of the unit or topic	Watches	The week
Daily exam	Lecture and	Learn the basic concepts of	Introduction to	3	First week

	explanation of the topic on the board	scientific paragraph	Psychology		
Questions and answers	Lecture and discussion	Learn the basic concepts of scientific paragraph	The concept of psychology	3	The second week
Exam on the board	Explain and write the lecture	Learn the basic concepts of scientific paragraph	Psychology schools	3	The third week
Daily exam	Explain and write the lecture in detail on .the board	Learn the basic concepts of paragraph scientific	Psychology goals	3	Week 4
Give home work questions and ask for answers	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	The relationship of psychology to other sciences	3	week fifth
Daily exam	Lecture and discussion	Learn the basic concepts of scientific paragraph	The concept of growth, maturity, development		6 Week
	Explain and write the lecture	Learn the basic concepts of scientific paragraph	Growth principles and laws	3	Week 7
Student participation on the board	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Mental and cognitive development Piaget's) (theory	3	Week 8
Give home work questions and ask for answers	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Moral development Kolbrook's) (theory	3	week ninth

Student participation on the board	Lecture and discussion	Learn the basic concepts of scientific paragraph	Social development Erikson's) (theory	3	week tenth
Give home work questions and ask for answers	Explain and write the lecture	Learn the basic concepts of scientific paragraph	Slow learning	3	week eleventh
Daily exam	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Digital addiction	3	week twelfth
Student participation on the board	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Deviant behaviors	3	thirteenth week
Student participation on the board	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	alcohol addiction	3	Fourteenth week

Evaluation Course .11	
The first month exam is (15) The second month exam is (15) Attendance, daily exam, participation and assignments are 10... We extract from them the effort score is 40 Final written exam of 60 .The final grade is 100	
resources Learning and teaching .12	
developmental psychology 2	Required textbooks (methodology if any)
1. Khatatneh (and -Sami Muhammad Al	(Main References (Sources

Principles of :others) 2011 nd ed., Amman, Dar 2 . **Psychology** . Masirah-Al 2. :Shafiq Falah Alawneh 2010 **Psychology of Human Development from Childhood to** nd ed., Amman, Dar Al 2 . **Adulthood** . Masirah 3. -Abdul Aziz Haider Hussein Al **Developmental** :Moussawi 2013 st 1 . **Psychology and its Theories** . Radwan-ed., Jordan, Dar Al 4. Atoum (and others) -Adnan Yousef Al **Developing Thinking Skills** :2009 **Theoretical Models and Practical) Applications** nd ed., Amman, Dar 2 , .Masirah-Al 5. **Child Thinking** :2010 , Naif Qatami nd ed., Amman, 2 . **and Intelligence** Dar Al Masirah for Publishing, . Distribution and Printing	
	porting Recommended sup books and references (...scientific journals, reports)
	Electronic references, websites

Course Description Form

Course name .1	
Differentiate	
Course code .2	
Differentiate	
Semester/Year .3	
Chapter One/First	
prepared Date this description was .4	
2024/1/10	
Available forms of attendance .5	
(In person (weekly	
(Number of study hours (total) / Number of units (total .6	
hours, number of units 3.5 units 56	
(Name of the course supervisor (if more than one name is mentioned .7	
:Name: M.M. Ahmed Taha Ahmed Emailahmed.tabes@tu.equ.iq	
Course objectives .8	
• preparation The truth and ,Its properties Value ,divorced Inequalities and ,Its solutions neighborhood ,a point point accumulation group. • Functions: Concept ,function The field and the range For the ,function Endings Great and The youngest Local And the ,divorced woman Functions Continuous and not ,Continuous Continuity .Regular • Derivation: its definition some Proofs ,Basic Derivative) sum , difference , to hit , Division((composition Functions derivative from Rank higher , Theorem Roll , Theorem Value Middle , a base Lopital , Derivative function Trigonometric and Exponential and Logarithmic) Natural and .(normal) • Concepts Derivation and se itU To get on Endings Great and The youngest Local And points ,The coup And drawing functions.	Subject objectives
Teaching and learning strategies .9	
Qualification And training The student And his education on rules And methods Differentials Regular applications And its Sports in Our daily life And benefit From it in Methodology what This is it differentiation Advanced For the stage Second	Strategy

And then in Stage Third during Solve the problem Dalat Differential And connect it with rest Topics Other. . Given resLectu differentiation In3 hours theory and clock one discussion To clarify Topics More from detail all week.	

Course Structure .10

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	Watches	The week
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Real numbers	Introduction and review of real numbers and their .properties	4	the first
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Solving inequalities	Absolute value, inequalities, their solutions, neighborhood points, and specific accumulation .points	4	the second
Daily, monthly exams, meworkho	Paper lecture Display screen Blackboard and pen	Functions	Functions: Concept of function, .domain	4	the third
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Opposite field	The corresponding domain of .functions	4	Fourth
,Daily monthly exams, homework	Paper lecture Display screen Blackboard and pen	Limits of . functions	Limits of .functions	4	Fifth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Continuity	Continuous and discontinuous functions, uniform .continuity	4	Sixth
exam semester First 2					Seventh
Daily, monthly exams,	Paper lecture Display screen	Derivation	Derivation: definition, some basic	4	The eighth

homework	Blackboard and pen		.theories		
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Derivation rules	Derivation sum,) difference, multiplication, division), composition of functions, derivative of higher order .ctionsfun	4	Ninth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Some derivation theories	Rolle's theorem, average value .theorem	4	tenth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Derivative of trigonometric .functions	Derivative of trigonometric .functions	4	eleventh
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Derivative of exponential and logarithmic functions	Derivative of exponential and logarithmic functions	4	twelfth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Applications about derivative	Derivative concepts and their uses to obtain local maximums, minimums and inflection , points And drawing .functions	4	thirteenth
Second semester exam					fourteenth
End of term exam					fifteenth

Course Evaluation .11	
:to the following criteria Students are evaluated during the semester according • First month exam of 15, second month exam of 15, daily exam and attendance and participation of 10 • Annual quest of 40 • Final exam of 60 • Final score out of 100	
Learning and teaching resources .12	
• I send" " Hisban differentiation And integration with Engineering Analytical" translation on Dear on and others University of Mosul The partial the first The second Edition Second1983 • My patience Synonym The suffering And ,others" Hisban differentiation Integration, 1981, Baghdad. • My patience Synonym The suffering And ,others" Hisban differentiation And integration Advanced"1981, Baghdad.	Required Textbooks
• on Dear on And a slave The Provider on -Al Haswan And fair Zanbal Hussein" Mathematics High" Ministry Education. Higher And research Scientific, 1980 • on Dear on And a slave The Provider on -Al Haswan And fair Zanbal Hussein" Principles mathematics differentiation Integration" Ministry education High And research Scientific, 1986 • Ramadan edMohamm Jehima and Dr. Ahmed slave High Come on wind" differential and the " partial " integration the first The second. Edition Third 2001	Main References
• Faleh Imran Dosari-Al" " Differential and the " partial " integration the first The second, 2007 • Nouri Happy Miyahi-Al" Introduction in Analysis Sports" " Printing ,Qadisiyah-Al Edition First201	Recommended supporting books and references
nothing	Electronic references, websites

Course Description Form

Advanced Probability :Course name .1
:Course code .2
Semester/Year: Course System .3
of preparation of this description: 9/27/2024
person classroom lectures-Available forms of attendance: in .5
units 3.5 :(hours / Number of units (total 56 :(Number of study hours (total .6
(supervisor (if more than one name is mentioned Name of the course .7
:Email M.M. Alaa Farhan Ahmed :Namealaa.f@tu.edu.iq
Course objectives .8 **1 Identify the types of random variables (discrete random variable and continuous random . (variable** 2. **functions for discrete random variables and functions for) Identify types of functions (continuous random variables** 3. **In (Characteristics and applications of mathematical prediction (mathematical prediction of a the case of a discrete random variable and mathematical expectation in the case (continuous random variable** 4. **Methods for finding moment generating functions** 5. **((binomial, Bernoulli, Poisson) Some discrete distributions**

3- Using different teaching methods, including lectures, learning, and solving, cooperative-discussion, problem .others	Strategy

Course Structure .10

Evaluation method	Learning method	Required learning outcomes	Name of the unit or topic	Watches	The week
Daily exam	Explain and write the	Learn the basic concepts of	discrete random	4	February first week

	lecture in detail on .the board	scientific paragraph	variable		
Questions and answers	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	hidden random variable	4	February second week
Exam on the board	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Functions for discrete random variables	4	February third week
Daily exam	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Functions for continuous random variables	4	February fourth week
Give home work questions and ask for answers	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Characteristics of mathematical expectation	4	March first week
Daily exam	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Sports In prediction the case of a discrete random variable		March second week
	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Mathematical expectation in the case of a continuous random variable	4	third March week
			First month exam	4	March fourth week
Give home work questions and ask for answers	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Methods for finding moment generating functions	4	April first week
Student	Explain and write the	Learn the basic concepts of	Discrete distributions		April second week

participation on the board	lecture in detail on .the board	scientific paragraph		4	
Give home work questions and ask for answers	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Discrete distributions binomial distribution	4	April third week
Daily exam	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Discrete distributions Bernoulli distribution	4	April 4th week
Student participation on the board	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Discrete distributions Poisson distribution	4	May first week
			Second month exam	4	May second week

Course Evaluation .11	
The first month exam is (15) The second month exam is (15) Attendance, daily exam, participation and assignments are 10... We extract from them the effort score is 40 Final written exam of 60 .The final grade is 100	
Learning and teaching resources .12	
Mathematical statistics Composition Amir Hanna Hormuz University of Mosul	Required textbooks (methodology if any)
Introduction to statistics -1 Composition Rawi-Dr. Khashe' Al Mosul University of Probability theory -2 Composition Fahadi-Dr. Qubais Saeed Al	(Main References (Sources

Dr. Berlanti Jamil Shamoon University of Mosul	
	Recommended supporting books and references (...scientific journals, reports)
	Electronic references, websites

Form Course Description

Course name .1	
Basics of mathematics	
Course code .2	
Basics of mathematics	
Semester/Year .3	
Chapter One/First	
Date this description was prepared .4	
2024/17/9	
Available forms of attendance .5	
(In person (weekly	
(Number of units (total / (Number of study hours (total .6	
(Name of the course supervisor (if more than one name is mentioned .7	
:Name: Ms. Haneen Adel Abdelrahman Emailhaneen19921006@gmail.com	
Course objectives .8	
• logical statements, ,Learn the principles of mathematical logic .truth table, and logical equivalence • .Learn about algebra of expressions, axes, sets, and set algebra • about relationships, their types, and the Cartesian Learn .product	Subject objectives
Teaching and learning strategies .9	
the basics of He received lectures on the subject of In the week .theoretical, for four hours , mathematics	Strategy

Course Structure .10

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	Watches	The week
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Set numbers	Introduction to Mathematical Logic and Different Number Groups	4	the first

Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Logical expressions	Logical expressions and their types	4	the second
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Truth tables	Truth tables	4	the third
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Logical equivalence	Logical equivalence	4	Fourth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	algebra expressions	Algebra expressions + various examples	4	Fifth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	The paths	Sports dialogue + rounds	4	Sixth
Midterm exam					Seventh
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Groups	Groups, their types and mathematical formula	4	The eighth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Operations on groups	Various operations on groups	4	Ninth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Group algebra	Group algebra on some theorems	4	tenth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Relationships	Relationships, their types and mathematical formula	4	eleventh
Daily, monthly exams,	Paper lecture Display screen	Examples of relationships and their	Various examples of relationships	4	twelfth

homework	**Blackboard and pen**	**types**			
Daily, monthly exams, homework	**Paper lecture Display screen Blackboard and pen**	**Cartesian multiplication**	**Cartesian product**	**4**	**thirteenth**
Second month exam					**fourteenth**
exam End of term					**fifteenth**

Course Evaluation .11	
:Students are evaluated during the semester according to the following criteria • First month exam of 15, second month exam of 15, daily exam and attendance and participation of 10 • Annual quest of 40 • Final exam of 60 • Final score out of 100	
Learning and teaching resources .12	
• Introduction to the foundations of mathematics, part two + the book of modern algebra	Required Textbooks
• Fundamentals of Mathematics by Dr. Hadi Shaker Jabr, Dr. Nader George, Dr. Riad Naoum	Main References
nothing	Electronic references, websites

Course Description Form

Course name .1	
Number theory	
Course code .2	
Number theory	
Semester/Year .3	
Chapter Two/First	
Date this description was prepared .4	
17/9/2024	
attendance Available forms of .5	
(In person (weekly	
(Number of study hours (total) / Number of units (total .6	
(Name of the course supervisor (if more than one name is mentioned .7	
:Email Louay Musa Rawi .Name: M.M loaytaref@tu.edu.iq	
Course objectives .8	
• The student learns about the ancient number systems .and natural numbers • .The student learns about mathematical induction • The student will learn about integers, the properties of ordering integers and prime numbers, and the analysis .nto prime factorsof numbers i • The student will learn about divisibility algorithms, .greatest common divisor, and least common multiple • .Knowing the basic theory of arithmetic • Learn about special numbers (Pythagorean, extra, (incomplete, perfect, amicable	Subject objectives
g and learning strategiesTeachin .9	
of numbers theory Receive lectures on the theoretical subject In the week .hours three for	Strategy

Course Structure .10

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	Watches	The week
Daily, monthly	Paper lecture Display	Old numerical	Old numerical systems	3	the first

exams, homework	screen Blackboard and pen	systems			
,Daily monthly exams, homework	Paper lecture Display screen Blackboard and pen	Natural numbers	Properties of natural numbers	3	the second
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Correct settings	Integers and properties of ordering integers	3	the third
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Prime numbers	Prime numbers and factoring .numbers	3	Fourth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Mathematical induction	Mathematical induction	3	Fifth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Mathematical induction	Proof using mathematical induction	3	Sixth
exam First month					Seventh
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	division algorithm	Divisibility algorithms	3	The eighth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	The greatest common .denominator	The greatest common .denominator	3	Ninth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	least common multiple	least common multiple	3	tenth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Basics of preparation	Base numbers and divisibility	3	eleventh

Daily, monthly exams, homework	**Paper lecture Display screen Blackboard and pen**	**The basic theory of .arithmetic**	**Knowing the basic theory .of arithmetic**	**4**	**twelfth**
Daily, monthly ,exams homework	**Paper lecture Display screen Blackboard and pen**	**Special settings**	**Learn about special numbers excess,) incomplete, perfect, (amicable**	**4**	**thirteenth**
Second month exam					**fourteenth**
End of term exam					**fifteenth**

Course Evaluation .11	
:Students are evaluated during the semester according to the following criteria • and First month exam of 15, second month exam of 15, daily exam and attendance participation of 10 • Annual quest of 40 • Final exam of 60 • Final score out of 100	
Learning and teaching resources .12	
• Introduction to Number Theory Authored by: Dosari-Faleh bin Imran bin Mohammed Al	Required Textbooks
Adnan , Number structure and number theory Mohammed Awad , Bassam Yousef Awda And Amman: Dar Al Furqan For publication and distribution	Main References
• Kenneth H.Rosen , Elementary number theory and its applications, 6th Edition, Addison-Wesley 3 publishing company. New York, 2010 • Gareth A. Jones, Elementary Number Theory, Springer, 1998	Recommended supporting books and references

nothing	Electronic references, websites

Course Description Form

Course name .1
Arabic
Course code .2
ARB01G111
Semester/Year .3
2025 - 2024 / First
Date this description was prepared .4
2024/26/10
Available forms of attendance .5
person lectures-Weekly in
(Number of study hours (total) / Number of units (total .6
.hours per week (2) hours per semester, at a rate of (24)
(Name of the course supervisor (if more than one name is mentioned .7
: Email A.M. Dr. Salam Abdul Jassim Drsalam2006@gmail.com
Course objectives .8

• .and literary heritage Teaching students linguistic • Preparing a university teacher capable of conveying information to students through weekly exams and . intensive education • the importance of the Arabic Teaching the student . try and proselanguage and its beauty in poe • Spreading intellectual and cultural awareness by strengthening the student's ability to criticize common .linguistic errors and how to correct them	Subject objectives

Teaching and learning strategies .9	
Monthly and end of semester -Lecture exam	Strategy 4

Course Structure .10					
Evaluation method	**Learning method**	**Name of the unit or topic**	**Required learning**	**Watches**	**The week**

			outcomes		
Preparation and participation	**The lecture**	Subject and predicate	**understand and apply**	**2**	**the first**
Preparation and participation	**The lecture**	Literature in the Islamic era	**understand apply and**	**2**	**the second**
Preparation and participation	**The lecture**	The agent and its types	**understand and apply**	**2**	**the third**
Preparation and participation	**The lecture**	Literature in the Umayyad era	**understand and apply**	**2**	**Fourth**
Preparation and participation	**The lecture**	Subject	**understand and apply**	**2**	**Fifth**
Preparation and participation	**The lecture**	Types of poetry in the Umayyad era	**understand and apply**	**2**	**Sixth**
First month exam	**Lecture and exam**	and its sisters Kan	**understand and apply**	**2**	**Seventh**
Preparation and participation	**The lecture**	Contradictions	**understand and apply**	**2**	**The eighth**
Preparation and participation	**The lecture**	In and its sisters	**understand and apply**	**2**	**Ninth**
Preparation and participation	**The lecture**	Spelling and its importance	**understand and apply**	**2**	**tenth**
Preparation and participation	**The lecture**	Drawing the middle and extreme hamza	**understand and apply**	**2**	**eleventh**
Second month exam	**Lecture and exam**	Arrange the letters Arabic of the alphabet according to the alphabetical, phonetic and phonetic system	**understand and apply**	**2**	**twelfth**

Course Evaluation .11	
The grade is distributed out of 100 according to the tasks assigned to the student, .daily, oral, monthly and written exams, reports, etc ,such as daily preparation	
Learning and teaching resources .12	
	(Required textbooks (methodology if any
The grammatical application of Abdo Al Rajhi. A series of .literature books by Shawqi Dayf	(Main References (Sources
International, Arab and Iraqi reviewed journals-peer	Recommended supporting books and (...references (scientific journals, reports
Websites of Iraqi universities and the websites of the , colleges of basic education the comprehensive as as well . library and the Noor Library	Electronic references, websites

Course Description Form

Course name .1
Arabic
Course code .2
ARB01G111
Semester/Year .3
2025 - 2024 / First
Date this description was prepared .4
2024/26/10
Available forms of attendance .5
person lectures-Weekly in
(Number of study hours (total) / Number of units (total .6
.hours per week (2) hours per semester, at a rate of (24)
(Name of the course supervisor (if more than one name is mentioned .7
: Email A.M. Dr. Salam Abdul Jassim Drsalam2006@gmail.com
Course objectives .8

• .and literary heritage Teaching students linguistic • Preparing a university teacher capable of conveying information to students through weekly exams and . intensive education • the importance of the Arabic Teaching the student . language and its beauty in poetry and prose • wareness by Spreading intellectual and cultural a strengthening the student's ability to criticize common .linguistic errors and how to correct them	Subject objectives

Teaching and learning strategies .9	
Monthly and end of semester -Lecture exam	Strategy 4

Course Structure .10

Evaluation method	Learning method	Name of the unit or topic	Required learning	Watches	The week

			outcomes		
Preparation and participation	**The lecture**	Subject and predicate	**understand and apply**	**2**	**the first**
Preparation and participation	**The lecture**	Literature in the Islamic era	**understand and apply**	**2**	**the second**
Preparation and participation	**The lecture**	The agent and its types	**understand and apply**	**2**	**the third**
Preparation and participation	**The lecture**	Literature in the Umayyad era	**understand and apply**	**2**	**Fourth**
Preparation and participation	**The lecture**	Subject	**understand and apply**	**2**	**Fifth**
Preparation and participation	**The lecture**	Types of poetry in the Umayyad era	**understand and apply**	**2**	**Sixth**
month First exam	**Lecture and exam**	Kan and its sisters	**understand and apply**	**2**	**Seventh**
Preparation and participation	**The lecture**	Contradictions	**understand and apply**	**2**	**The eighth**
Preparation and participation	**The lecture**	In and its sisters	**understand and apply**	**2**	**Ninth**
Preparation and participation	**The lecture**	Spelling and its importance	**understand and apply**	**2**	**tenth**
Preparation and participation	**The lecture**	Drawing the middle and extreme hamza	**understand and apply**	**2**	**eleventh**
Second month exam	**Lecture and exam**	Arrange the letters of the Arabic alphabet according to the alphabetical, phonetic and phonetic system	**understand and apply**	**2**	**twelfth**

Course Evaluation .11	
The grade is distributed out of 100 according to the tasks assigned to the student, .exams, reports, etc such as daily preparation, daily, oral, monthly and written	
Learning and teaching resources .12	
	(Required textbooks (methodology if any
The grammatical application of Abdo Al Rajhi. A series of .literature books by Shawqi Dayf	(Main References (Sources
International, Arab and Iraqi reviewed journals-peer	Recommended supporting books and (...references (scientific journals, reports
Websites of Iraqi universities and the websites of the , colleges of basic education the comprehensive as well as . the Noor Library library and	Electronic references, websites

Course Description Form

Course name: English Language .1
:Course code .2
2025-Semester/Year: Second/ 2024 .3
Date of preparation of this description: 09/17/2024 .4
(attendance: Attendance (giving lectures Available forms of .5
hours, 2 30 :(Number of study hours (total) / number of units (total .6 hours per week
(Name of the course supervisor (if more than one name is mentioned .7
:Name: M.M. Shaker Hussein Ali Emailshakir.h.ali@tu.edu.iq

Course objectives .8	
Teaching all students in English for all _ students Serving the community by providing it with - educational cadres specialized in the language .and its teaching methods English language skills and Developing - of the English studying the characteristics . language	Subject objectives
Teaching and learning strategies .9	
Delivering -1 role exchange Discussion and -2 Explain the place, time and English -3 parts according to what is in the .prescribed curriculum	Strategy

Course Structure .10

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	Watches	The week
, exams monthly	Classroom lectures	theoretical	**Parts of speech -Parts of Speech**	2	October 1

,written exams to in addition class .participation And daily exams	Classroom lectures	theoretical	**Attributes -Adjectives**	2	2-October
	Classroom lectures	theoretical	**Types of attributes -Kind of Adjectives**	2	October 3
	Classroom lectures	theoretical	**Comparing adjectives -Comparison of Adjectives**	2	October 4
	Classroom lectures	theoretical	**The roof -Adverbs**	2	1-November
	Classroom lectures	theoretical	**Types of roof -Kind of Adverbs**	2	2-November
	Classroom lectures	theoretical	**Position of letters -Position of Adverbs**	2	3-November
	Classroom lectures	theoretical	**Compare the roof -Comparison of Adverbs**	2	November 4
	Classroom lectures	theoretical	**Comprehension passages**	2	1-December
	Classroom lectures	theoretical	**Part 1 Facts, Understanding, Vocabulary -Passage no: the facts, Comprehension, Vocabulary**	2	2-December
	Classroom lectures	theoretical	**Piece #2: Unknown Goddess, Understanding and Vocabulary -Passage no: An Unknown Goddess, comprehension, vocabulary**	2	3-December
	Classroom lectures	theoretical	**Phonetics. Voiced and unvoiced .consonants -Phonetics -Consonants, voiced and voiceless -Diphthongs**	2	December 4

Course Evaluation .11

The grade is distributed out of 100 according to the tasks assigned to the student, .daily preparation, daily, oral, monthly and written exams, reports, etc such as

Learning and teaching resources .12

English Language Assessment for International Students	(Required textbooks (methodology if any
- Rapid Review of English Grammer by Praninskas,J Developing Skills by - , AlexanderL.G. -Phonetics and Phonology by Roach, P	(Main References (Sources
	Recommended supporting books and (...references (scientific journals, reports
- Spark Note websites and training All related-courses	Electronic references, websites

Course Description Form

Course name: Word printing program .1

:Course code .2

First Semester :Semester/Year .3

Date of preparation of this description: 10/9/2024 .4

immanence Safiya Lectures :Available forms of attendance .5

Number of study hours (total) / Number of units (total): 26 hours .6

(Name of the course administrator (if more than one name is mentioned .7
:Name: Eng. Ali Mustafa Ali Emaileng.ali78@tu.edu.iq

Course objectives .8	
1. . Writing and formatting in Word 2. .Ability to create professional Word documents 3. .Ability to use advanced Word tools to create interactive content 4. .Ability to print documents correctly	Subject objectives

Teaching and learning strategies .9	
Preparing competent teachers capable of integrating	Strategy

modern technology into the educational process to enhance interaction and academic achievement, spread Islamic values and promote religious awareness.	

Course Structure .10

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	Watches	The week
Classroom performance	**Lecture and discussion**	Learn about Word	knowledge and understanding	**2**	**September The third week**
Performance The class	**The lecture and discussion**	the File Learn about .tab and its tools	Knowledge and understanding	**2**	**September Week 4**
Performance The class	**The lecture and discussion**	Get to know the Home tab and its tools	Knowledge and understanding	**2**	**October month the first week**
Performance The class	**The lecture and discussion**	Complete the Home tab and its tools	Knowledge and understanding	**2**	**October month the week second**
Performance The class	**The lecture and discussion**	Get to know the Insert tab and its tools	Skill and value objectives	**2**	**October month the third week**
Performance The class	**The lecture and discussion**	Complete the work with the Insert tab and .its tools	Skill and value objectives	**2**	**October month Fourth week**
Performance The class	**a test**	Monthly test	Skill and value objectives	**2**	**month November the first week**
Performance The	**The lecture and**	Get to know the Page Layout tab and its tools	Skill and value objectives	**2**	**month November the week**

class	**discussio n**				**second**
Perfor mance The class	**The lecture and discussio n**	Complete the Page Layout tab and its .tools	Skill and value objectives	**2**	**month November the third week**
Perfor mance The class	**The lecture and discussio n**	Get to know the Review tab and its tools	Knowledge and understandin g	**2**	**month November Fourth week**
Perfor mance The class	**The lecture and discussio n**	Get to know the View tab and its tools	Skill and value objectives	**2**	**month December the first week**
Perfor mance The class	**The lecture and discussio n**	Learn typing and keyboard shortcuts	Skill and value objectives	**2**	**month December the week second**
Perfor mance The class	**a test**	Monthly test	Skill and value objectives	**2**	**month December the third week**

Course Evaluation .11	
First month exam from 15/ Second month exam from 15/ Oral exam and daily We extract from it the effort ...10 preparation and attendance and participation from score from 40 Final written exam of 60 .The final grade is 100	
Learning and teaching resources .12	
Full explanation of Word program	Required textbooks (methodology (if any
Office Applications Basics and Word 5	(Main References (Sources
• **by Dr. Muhammad Abd Sayyid-Rahman al-al. " Word Basics " The book** • **Technology and Education" Magazine issued by "**	Recommended supporting books

Tikrit University. • **Education" magazine issued by the Iraqi " Ministry of Education.** • **Report "Using Computer Programs in Education" issued by the Iraqi Ministry of Education.** • **Website of the College of Basic Education at Tikrit University https://cbes.tu.edu.iq/** • **Tikrit University Library https://www.tu.edu.iq/**	and references (scientific journals, (...reports
• **Official Microsoft Word website** https://www.microsoft.com/en-us/microsoft-365/word • **Khan Academy website** https://ar.khanacademy.org/ • website **Coursera https://www.coursera.org/**	Electronic references, websites

Academic Program Description Form

Course Description Form

Course name .1
Counseling and mental health
Course code .3
First semester/year .3
Chapter One
description was prepared Date this .4
2024/9/10
:Available forms of attendance .5
person classroom lectures-In
(Number of study hours (total) / Number of units (total .6
hours 45
(Name of the course supervisor (if more than one name is mentioned .7
:Name: Prof. Dr. Ali Alij Khader Emaildr.ali 7763@tu.edu.iq
Course objectives .8

• **Getting to know the subject of guidance and mental health, as it contains important educational and psychological aspects and foundations for learners who will become teachers in the near future .** • **Recognizing the great importance lth for of guidance and mental hea the teacher in his dealings with . students in the primary stage** • **Enabling the learner to deal with the problems he encounters and how to overcome them in a .scientific manner**	Subject objectives
Teaching and learning strategies .9	
(lecturing) Standard method	Strategy

Discussion method Problem solving method	

Course Structure .10

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	Watches	The week
Classroom performance	The lecture	Definitions in psychological and educational guidance	**Counseling and mental health**	3	2 -September
Classroom performance	The lecture	Definitions in psychological and educational guidance	**Counseling and mental health**	3	3-September
Classroom performance	lecture The	Guidance methods	**Counseling and mental health**	3	September 4
Classroom performance	The lecture	The of foundations psychological and educational guidance	**Counseling and mental health**	3	October 1
Classroom performance	The lecture	Fields of psychological and educational counseling	**Counseling and mental health**	3	2-October
Classroom performance	The lecture	Fields of psychological and educational counseling	**Counseling and mental health**	3	October 3
Classroom performance	The lecture	Theories of psychological and educational guidance	**Counseling and mental health**	3	October 4
First month exam				3	1-November
Classroom performance	The lecture	Information needed for psychological	**Counseling and mental health**	3	2-November

		and educational guidance			
Classroom performance	The lecture	Definitions in mental health	**Counseling and mental health**	3	3-November
Classroom performance	The lecture	Mental - health curricula Characteristics of a mentally healthy personality	**Counseling and mental health**	3	November 4
Classroom performance	The lecture	mental defense mechanisms	**Counseling mental and health**	3	1 - December
Classroom performance	The lecture	mental defense mechanisms	**Counseling and mental health**	3	2 - December
Classroom performance	The lecture	Compatibility and its indicators	**Counseling and mental health**	3	3 - December
Second month exam				3	4 - December

Course Evaluation .11
: following criteria to the according Students are evaluated during the semester 0 2 Second month exam from / 20 First month exam from _ 40 Seeking from _ exam of 60 Final _ Final grade out of 100 _
Learning and teaching resources .13

Educational and _1 Psychological Guidance / Dr. Hayani, -Asim Mahmoud Al Mosul University Press, 1990 **Guidance and _2 / Psychological Counseling Dr. Hamed Abdel Salam Kutub, Cairo, -Zahran, Alam Al .1980** **Mental Health and -3**	(Required textbooks (methodology if any

Psychotherapy / Dr. Hamed -Abdel Salam Zahran, Alam Al .Kutub, Cairo, 1986	
Educational and _1 Psychological Guidance / Dr. ,Hayani-Asim Mahmoud Al Mosul University Press, 1990 Guidance and _2 Psychological Counseling / Dr. Hamed Abdel Salam Kutub, Cairo, -Zahran, Alam Al .1980 Mental Health and -3 Psychotherapy / Dr. Hamed -Abdel Salam Zahran, Alam Al .Kutub, Cairo, 1986	(Main References (Sources
	and Recommended supporting books (...references (scientific journals, reports
	Electronic references, websites

Course Description Form

:Course name .1

Advanced Differential

:Course code .2

:Semester/Year .3

Course system

:Date of preparation of this description .4

15/9/2024

:Available forms of attendance .5

person classroom lectures-In

:(Number of study hours (total .6

units 3.5 :(hours / Number of units (total 56

(Name of the course supervisor (if more than one name is mentioned .7

:Email M.M. Ahmed Taha Ahmed :Name ahmed.tabes@tu.edu.iq

Course objectives .8

1 The student will understand the types of functions and find the domain and range of each .
(radical function (polynomial, fractional, or

6. **The student learns the seven rules of differentiation as well as the rules of differentiation for trigonometric functions, exponential functions, logarithmic functions, inverse functions, and .hyperbolic functions**
7. **of analysis to control the subject of purpose The student learns the methods .and continuity, as well as memorizing the laws of continuity**
8. **The limit variable for algebraic, trigonometric, exponential and Knowing the drawing steps logarithmic functions**
9. **trigonometric functions and hyperbolic functions and their To learn the derivative of inverse .relationship with exponential functions**

4- Using different teaching methods, including lectures, solving, cooperative learning, and -discussion, problem .others	Strategy

Course Structure .10

Evaluation method	**Learning method**	**Required learning outcomes**	**Name of the unit or topic**	**Watches**	**week The**

	Lecture and explanation of the topic on the board	The student knows the functions with one variable, two variables, or three .variables	Function with more than one independent variable	4	September week third
Questions and answers	Lecture and discussion	Learn the basic of domain, concepts codomain, and range .of a function	Domain and range of functions with more than one independent variable	4	September week fourth
Daily exam	Explain and write the lecture	Knowing the laws of purpose and methods of analysis to get rid of zero in the denominator and how to find the unknowns, one or two unknowns	The goal (and (ways to solve it	4	first October week
Student participation on the board	Explain and write the lecture in detail on .the board	Preserving the conditions of continuity as well as their connection to the goal and finding constants	Continuity rules of) continuity and their connection with the goal and finding (constants	4	October week second
Exam on the board	Explain the topic on the board	Knowing the rules of differentiation of one variable as well as implicit rentiation of diffe functions with two or more variables	Partial derivatives (for functions with more than one independent variable with related (theorems	4	third October week
			First month exam	4	fourth October week
duty Questions and answers	Explain and write the lecture	Master the laws of derivatives and higher derivatives of two or more .derivatives	Derivatives of higher orders	4	first November week
Student participation on the board	Explain and write the lecture in detail on .the board	The student learns to graph functions for one variable and then for two variablesx, y.	How to graph the function f(x,y)	4	November week second
Give home	Explain and write the	Learn the basic of concepts	Using a pocket calculator to		November week third

work questions and ask for answers	lecture in detail on .the board	graphing as well as the graphing rules for logarithmic and exponential .functions	graph the functions y=Ln(x), $y=e^x$	4	
Student participation on the board	Lecture and discussion	Learn the basic of concepts graphing as well as the graphing laws of trigonometric .functions	Using a pocket calculator to draw functions $y = \sin x$ Other examples of quadratic and cubic variables	4	November week fourth
Give home work questions and ask for answers	Explain and write the lecture	Learn the basic of concepts graphing as well as the graphing laws of trigonometric .functions	Special study of derivatives$y = \sinh x$, $y = \cosh x$, $y = \tanh x$	4	first January week
Daily exam	Explain and write the lecture in detail on .the board	The student learns the derivative of trigonometric functions as well as hyperbolic functions and their relationship with exponential .functions	Special study of derivatives $y = \operatorname{csch} x$ $y = \operatorname{sech} x$ $y = \coth x$	4	January week second
			month Second exam	4	third January week

Course Evaluation .11	
The first month exam is (15) The second month exam is (15) Attendance, daily exam, participation and assignments are 10... We extract from them the effort score is 40 Final written exam of 60 .The final grade is 100	
Learning and teaching resources .12	
1. Anton, H., Bivins, I. C., & Davis, S. .Calculus. John Wiley & Sons .(2021)	Required textbooks

	(methodology if any)
2. **Fouad Hamza Abdel Sharifi. Who developed the .(2016) integral differential and ?calculus** 3. **Strang, G. (1991). Calculus (Vol. 1). SIAM**	(Main References (Sources
1. Anton, H., Bivens, I. C., & Davis, S. (2021). Calculus. John Wiley & Sons.	Recommended supporting books and references (...scientific journals, reports)
	Electronic references, websites

Course Description Form

Linear Algebra :Course name .1

:Course code .2

Semester/Year: Course System .3

Date of preparation of this description: 9/27/2024 .4

person classroom lectures-Available forms of attendance: in .5

units 3.5 :(hours / Number of units (total 56 :(Number of study hours (total .6

(Diaa Nazim Ahmed) Name of the course supervisor .7

:Email Ayad Hamad Khalaf .Name: Drdheyaa.alangood@tu.edu.iq

Course objectives .8:

general Study linear algebra in -1

Concepts, dimensions and foundations of linear algebra -2

Finding eigenvalues and eigenvectors -3

5- Using different teaching methods, including lectures, solving, cooperative learning, and -discussion, problem .others	Strategy

Structure Course .10

Evaluation method	Learning method	Required learning outcomes	Name of the unit or topic	Watches	The week
Daily exam	Lecture and	Learn the basic concepts of	vector space	4	February first week

	explanation of the topic on the board	scientific paragraph			
Questions and answers	Lecture and discussion	Learn the basic concepts of scientific paragraph	Vectors and scalar quantities	4	February second week
Exam on the board	Explain and write the lecture	Learn the basic concepts of scientific paragraph	Multiply and add vectors	4	February third week
Daily exam	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Subspaces	4	February fourth week
Give home work questions and ask for answers	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Linear composition	4	March first week
Daily exam	Lecture and discussion	Learn the basic concepts of scientific paragraph	basis and dimension	4	March second week
	Explain and write the lecture	Learn the basic concepts of scientific paragraph	Coordinates	4	March third week
Student participation on the board	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Linear independence	4	March fourth week
4 Give home work questions and 4 ask to solve them	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Linear accreditation	4	April first week
4 M Share 4 students on	Lecture and discussion	Learn the basic concepts of scientific paragraph	and Row column space and matrix rank	4	April second week

the board					
Give home work questions and ask for answers	Explain and write the lecture	Learn the basic concepts of scientific paragraph	Linear transformations	4	April third week
Daily exam	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Nucleus and conversion range	4	April 4th week
Student participation on the board	Explain and write the lecture in detail on .the board	basic Learn the concepts of scientific paragraph	values-Self	4	May first week
			Eigenvectors	4	May second week

Course Evaluation .11	
(First month exam out of (15) Second month exam out of (15 daily exam, participation and assignments out of 10.... We , Attendance .extract from them the effort score out of 40 Final written exam of 60 .The final grade is 100	
Learning and teaching resources .12	
1. Linear Nizar Hamdoun Algebra Linear Algebra Schaum's -2 Outlines Series Basics of Simplified Linear -3 Sharawi-Algebra Muhammad Al	Required textbooks (methodology (if any
4. Introduction to Group -Theory Ali Hassan Al Tamimi	(Main References (Sources
6	Recommended supporting books references (scientific journals, and (...reports

	Electronic references, websites

Course Description Form

Course name .1	
Advanced possibilities	
Course code .2	
Advanced possibilities	
Semester/Year .3	
Chapter One/Second	
was prepared Date this description .4	
2024/17/9	
Available forms of attendance .5	
(In person (weekly	
(Number of study hours (total) / Number of units (total .6	
(Name of the course supervisor (if more than one name is mentioned .7	
:Name: M.M. Alaa Farhan Ahmed Emailhaneen19921006@gmail.com	
Course objectives .8	
• Understand the concept of a random variable (discrete, continuous), the probability mass function of a discrete random variable and the probability density function of a variable, the distribution function of a continuous random random variable, the joint distribution of two random variables, mathematical expectation, and the moment .generating function • Learn about the distribution of a random variable and the .variance of a random variable • Learn about some discrete distributions (Bernoulli, Binomial, (Poisson	Subject objectives
Teaching and learning strategies .9	
Advanced Probability lectures are given in both theory and The week .practice, over a period of four hours	Strategy

Course Structure .10

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	Watches	week The
Daily, monthly	Paper lecture Display	Terms in probability	Identify and define the	4	the first

exams, homework	screen Blackboard and pen		terms used in probability, such as experiment) accident, , sample space, (.etc		
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	variable random intermittent	random variable and probability mass function	4	the second
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	cumulative distribution function	Cumulative distribution function for a discrete random variable	4	the third
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	The representation of a discrete random variable	Graph of a discrete random variable	4	Fourth
Daily, monthly exams, meworkho	Paper lecture Display screen Blackboard and pen	continuous random variable	Continuous random variable and probability density function	4	Fifth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	cumulative distribution function	Cumulative distribution function for continuous random variable	4	Sixth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Representation of a continuous random variable	Graph of a continuous random variable	4	Seventh
First month exam					The eighth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Sports prediction	Mathematical expectation and its properties in the case of continuous and discrete random	4	Ninth

			variables		
Daily, monthly exams, homework	**Paper lecture Display screen Blackboard and pen**	**Contrast**	**Variance and some of its properties**	**4**	**tenth**
Daily, monthly exams, homework	**Paper lecture Display screen Blackboard and pen**	**Moment generating function**	**Moment generating function**	**4**	**eleventh**
Daily, monthly exams, homework	**Paper lecture Display screen Blackboard pen and**	**Bernoulli distribution, binomial**	**Bernoulli distribution, binomial**	**4**	**twelfth**
Daily, monthly exams, homework	**Paper lecture Display screen Blackboard and pen**	**Poisson distribution**	**Poisson distribution**	**4**	**thirteenth**
Second month exam					**fourteenth**
End of term exam					**fifteenth**

Evaluation Course .11	
:Students are evaluated during the semester according to the following criteria • First month exam of 15, second month exam of 15, daily exam and attendance and participation of 10 • Annual quest of 40 • Final exam of 60 • Final score out of 100	
Learning and teaching resources .12	
• Introduction to Statistics, written by Khashe' Rawi 2000-Al	Required Textbooks
• principles Statistics- Author Naeem second To	Main References

Mohammed and Humble Narrator 2000	
• Probability and Random Variables (Part 1 and Written by Basil Dhnoon Younis 1999 - (2 • Introduction to Probability and Statistical Mendenhall 1979	Recommended supporting books and references
nothing	Electronic references, websites

Course Description Form

Course name .1	
General teaching methods	
Course code .2	
General Teaching Methods / Third Stage	
Semester/Year .3	
quarterly	
Date this description was prepared .4	
2024/9/12	
Available forms of attendance .5	
My presence	
(Number of study hours (total) / Number of units (total .6	
(the course supervisor (if more than one name is mentioned Name of .7	
:Name: Abdullah Mohammed Ahmed Email **abdullah.moh@tu.edu.iq**	
Course objectives .8	
• Recognizing the great . importance of general teaching ...methods • find ,Enable students to learn and practice teaching ....methods • The teacher can use methods .. to help students understand and .comprehend the subject matter	Subject objectives
Teaching and learning strategies .9	
Students are able to learn and practice room general teaching methods in the class .in order to overcome mistakes	Strategy

Course Structure .10

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	Watches	The week
Classroom	The lecture	The		2	the first

performance		concept of teaching method theories and their importance			

Classroom performance	The lecture	Explanation of general teaching methods		2	the second
Classroom performance	The lecture	concept The importance of teaching skills		2	the third
Classroom performance	The lecture	Diversification of teaching its and strategy		2	Fourth
Classroom performance	The lecture	Teaching methods based on research into knowledge		2	Fifth
Classroom performance	The lecture	Educational theory of cooperative learning		2	Sixth
Classroom performance	The lecture	Teaching methods for empowerment and creativity		2	Seventh

Classroom performance	**The lecture**	**Learning strategies to mastery**		**2**	**The eighth**
Classroom performance **Classroom performance**	**The lecture** **The lecture**	**Application steps in the educational situation** **Brainstorming method**		**2** **2**	**Ninth** **tenth**

Course Evaluation .11	
The grade is distributed out of 100 according to the tasks assigned to the student, .daily, oral, monthly and written exams, reports, etc ,such as daily preparation	
Learning and teaching resources .12	
Lectures from several sources	(Required textbooks (methodology if any
General Teaching Methods Dr. Diaa Awad Harbi	(Main References (Sources
General Teaching Methods Dr. Hilal Mohammed Ali	supporting books and Recommended (...references (scientific journals, reports
	Electronic references, websites

Course Description Form

Course name: Research Methods .1
:Course code .2
:Semester/Year .3
Date of preparation of this description: 9/17/2024 .4
person classroom lectures-in : Available forms of attendance .5
Number of study hours (total): 45 / Number of units (total): 3 .6
(mentioned Name of the course supervisor (if more than one name is .7
:Asst. Prof. Dr. Loay Musa Rawi Emailloaytaref@tu.edu.iq
Course objectives .8

:**The Research Methods course aims to enable the learner to** **1) scientific research skills Recognizes** **2) problem that serves the solution of a research It concludes .the society** **3) . of scientific research Understand the concept** **4) educational situations and their relationship about learns . scientific research to**	Subject objectives
Teaching and learning strategies .9	
Method of giving lectures **-1** method Discussion -2	Strategy

Course Structure .10

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	Watches	The week
Extracurricul homework ar and exercises	The lecture	Science and scientific research	Understanding the stages of knowledge acquisition	3	the first

Extracurricular homework and exercises	The lecture	?What is science	Understand the most important goals of science and the characteristics of research	3	the second
Extracurricular homework and exercises	The lecture	Educational research and its steps	Understanding research hypotheses and variables	3	the third
Extracurricular homework and exercises	The lecture	Ethical Considerations in Educational Research	Understanding the Ethical Side of Scientific Research	3	Fourth
Extracurricular homework and exercises	The lecture	Research classification	Identifying the types of research and their characteristics	3	Fifth
Extracurricular homework and exercises	The lecture	Descriptive research		3	Sixth
Extracurricular homework and exercises	The lecture	Experimental research		3	Seventh
Extracurricular homework and exercises	The lecture	Research problem and hypotheses	Understand the sources of the problem	3	The eighth
Extracurricular homework and exercises	The lecture	literature Review of related to the research problem	Understanding study subjects and sampling methods	3	Ninth
Extracurricular homework and exercises	The lecture	Data Collection Tools	questionnaire, interview, observation	3	tenth
Extracurricular homework and exercises	The lecture	Preparing the research report	How to prepare the report	3	eleventh
Extracurricular homework sand exercise	The lecture	Summary of a master's or doctoral thesis by students	Understanding How to Critique and Summarize a Master's Thesis	3	twelfth

Course Evaluation .11

Extracurricular assignments of 10 + an exam of 10 for each month are added together to .get an effort score of 40

Learning and teaching resources .12

Fundamentals of educational research	Required textbooks (methodology (if any
Educational Research Policies	(Main References (Sources
Scientific Research Methods in Education & Psychology (	Recommended supporting books and references (scientific journals,

	(...reports
://faculty.uobasrah.edu.iq/uploads/publications/1663492371.docx	Electronic references, websites

Course Description Form

Numerical Analysis :Course name .1
:Course code .2
Semester/Year: Course System .3
:Date of preparation of this description .4
7/9/2024
person classroom lectures-Available forms of attendance: in .5
units 3.5 :(hours / Number of units (total 56 :(Number of study hours (total .6
(Name of the course supervisor (if more than one name is mentioned .7
:Email Ayad Hamad Khalaf .Name: Drdrayadlohebe@tu.edu.iq
Course objectives .8 **1 , Raphson method -Solutions of nonlinear equations, determination of root locations, Newton . convergence** **Finding roots of a polynomial ,Iterative methods** 10. **Jordan method-method, Gauss Solutions of linear equations, Gauss elimination** 11. **Numerical Integration and Differentiation: Numerical Differentiation Newton's Formulas mson sb base , for Numerical Differentiation** 12. **Kutta Method-Solving Ordinary Differential Equations, Runge**

6- methods, including lectures, Using different teaching solving, cooperative learning, and -discussion, problem .others	Strategy

Course Structure .10

Evaluation method	Learning method	Required learning outcomes	Name of the unit or topic	Watches	The week
Daily exam	Lecture and	Learn the basic concepts of	Solutions of nonlinear	4	February first week

	explanation of the topic on the board	scientific paragraph	equations		
Questions and answers	Lecture and discussion	Learn the basic concepts of scientific paragraph	Root location mapping	4	February second week
Exam on the board	Explain and write the lecture	Learn the basic concepts of scientific paragraph	Newton Raphson method	4	February third week
Daily exam	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	rapprochement Iterative methods	4	February fourth week
Give home work questions and ask for answers	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Finding roots of a polynomial	4	March first week
Daily exam	Lecture and discussion	Learn the basic concepts of scientific paragraph	Solutions of linear equations		March second week
	Explain and write the lecture	Learn the basic concepts of scientific paragraph	How to delete a clown	4	March third week
Student participation on the board	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	The Kaos Jordan Method	4	March fourth week
Give home work questions and ask for answers	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Numerical differentiation	4	April first week
Student participation on the board	Lecture and discussion	Learn the basic concepts of scientific paragraph	Numerical integration	4	April second week

e Giv home work questi ons and sk for answe rs	Explain and write the lecture	Learn the basic concepts of scientific paragraph	Numerical differentiation Newton's formulas for numerical differentiation	4	April third week
Daily exam	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Mson base B S	4	April 4th week
Stude nt partici pation on the board	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Solving Ordinary Differential ,Equations Kutta -Runge Method	4	May first week
			Second month exam	4	May second week

Course Evaluation .11	
second month exam is (15) The first month exam is (15) The Attendance, daily exam, participation and assignments are 10... We extract from them the effort score is 40 Final written exam of 60 .The final grade is 100	
Learning and teaching resources .12	
1. Ali Muhammad Sadiq and Ibtisam Din "Principles of Numerical -Kamal Al Analysis" University of Baghdad1985	Required textbooks (any methodology if)
5. -Kazem Mohammed Hussein Al Lami "Introduction to Numerical Analysis" University of Basra 1987 6. Kendall E. Atkinson, laciremuN ot noitcudortnl" Analysis," translated by Kazem Mohammed Hussein and ,Montaha Gerges1988.	(Main References (Sources
.1 Burden, Numerical Analysis", 1985 .2 Froberg. C.F., "Introduction to Numerical Analysis," London, 1969. 3. Hildebrand. F. B, "Introduction to	Recommended supporting books and references

Numerical Analysis" New York, 1974.	(...scientific journals, reports)
	Electronic references, websites

Course Description Form

Advanced Statistics :Course name .1

:Course code .2

Semester/Year: Course System .3

4 :Date of preparation of this description .9/15/2024

person classroom lectures-Available forms of attendance: in .5

units 3.5 :(hours / Number of units (total 56 :(Number of study hours (total .6

(course supervisor (if more than one name is mentioned Name of the .7

:Email M.M. Alaa Farhan Ahmed :Namealaa.f@tu.edu.iq

Course objectives .8

1 binomial, Bernoulli,) Identify the types of discrete/continuous probability distributions .
((Poisson, normal
13. **(to design samples (random sample, systematic random sample, stratified sample Learn how**
14. **Hypothesis testing (steps related to hypothesis testing, tests related to averages, tests related (to proportions**
15. **t distribution**
16. **square distribution-chi**
17. **F distribution**

7- Using different teaching methods, including lectures, solving, cooperative learning, and -discussion, problem .others	Strategy

Course Structure .10

Evaluation method	Learning method	Required learning outcomes	Name of the unit or topic	Watches	The week
Daily exam	Explain and write the	Learn the basic concepts of	Bernoulli distribution	4	February first week

	lecture in detail on .the board	scientific paragraph	function and expectation of Bernoulli distribution		
Questions and answers	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Variance of Bernoulli distribution and moment generating function of Bernoulli distribution	4	February second week
Exam on the board	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Binomial distribution function and expectation of binomial distribution	4	February third week
Daily exam	Explain and write the lecture in detail on .the board	Learn the basic concepts of paragraph scientific	Variance of binomial distribution	4	February fourth week
Give home work questions and ask for answers	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Binomial distribution moment generating function	4	March first week
Daily exam	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Poisson distribution function and expectation of Poisson distribution		March second week
	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Variance of Poisson distribution and the generating function of Poisson distribution moments	4	March third week
			First month exam	4	March fourth week
Give home work	Explain and write the lecture in	Learn the basic concepts of scientific paragraph	Normal distribution	4	first week April

questi ons and sk for answe rs	detail on .the board				
Stude nt partici pation on the board	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Sample design method	4	April second week
Give home work questi ons and sk for answe rs	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Steps for testing hypotheses and tests related to averages and proportions	4	April third week
Daily exam	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	t- distribution square -and chi distribution	4	April 4th week
Stude nt partici pation on the board	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	F distribution	4	May first week
			Second month exam	4	May second week

Evaluation Course .11	
The first month exam is (15) The second month exam is (15) Attendance, daily exam, participation and assignments are 10... We extract from them the effort score is 40 Final written exam of 60 .The final grade is 100	
resources Learning and teaching .12	
8	Required textbooks (methodology if any)

Introduction to Statistics **Composition** **Rawi-Dr. Khashe' Al** **University of Mosul**	(Main References (Sources
	Recommended supporting books and references (...scientific journals, reports)
	references, Electronic websites

Course Description Form

:Course name .1
Ordinary differential equations
:Course code .2
:Semester/Year .3
Course system
:Date of preparation of this description .4
15/9/2024
:Available forms of attendance .5
classroom lectures person-In
:(Number of study hours (total .6
units 3.5 :(hours / Number of units (total 52
(Name of the course supervisor (if more than one name is mentioned .7
:Email M.M. Ahmed Taha Ahmed :Nameahmed.tabes@tu.edu.iq
Course objectives .8 **1 The student should differentiate between ordinary and partial differential equations, and . master the laws of integration** 18. **Distinguish between first order differential equations (separation of variables, homogeneous .with the method of solving each one (or heterogeneous, linear or nonlinear** 19. **Mastering the methods of analysis to be able to solve the general solution, as well as finding the specific solution through exponential functions, trigonometric functions, and polynomial .functions** 20. **matrices and how to derive them Knowing the steps of**

8- Using different teaching methods, including lectures, solving, cooperative learning, and -discussion, problem .others	Strategy

Course Structure .10

Evaluation method	Learning method	Required learning outcomes	Name of the unit or topic	Watches	The week
	Lecture and	The student should be able to	The difference between	4	September week third

	explanation of the topic on the board	distinguish between ordinary and partial differential equations and find .the rank and degree	ordinary and partial differential equations and the order and degree of the equation		
Questions and answers	Lecture and discussion	Learn the basic concepts of separation of variables and control integration of .methods	First order differential equations (separation of variables (method	4	September week fourth
Daily exam	Explain and write the lecture	The student should be able to distinguish between the two methods, as ith the well as w previous method, and how to convert homogeneous -non equations into homogeneous .equations	First order differential equations homogeneous) -and non homogeneous equations (method	4	first October week
Student ciparti ɔation ɔn the board	Explain and write the lecture in detail on .the board	The student should distinguish between the two methods, as well as with the previous method, and how to convert linear equations -non Bernoulli) into linear) .equations	First order differential ,equations linear differential equations and nonlinear equations Bernoulli) (equation	4	October week second
			First month exam	4	third October week
Daily exam	Lecture and discussion	Learn the basic of analysis concepts methods to control the general solution as well as memorize hypotheses of the .the specific solution	General solution and specific solution of differential equations	4	fourth October week
duty Questions and answers	Explain and write the lecture	Learn the basic concepts of scientific paragraph	Linear equations from higher order to first order with numerical equations	4	first November week
Student partici	Explain and write the lecture in	Learn the basic concepts of scientific paragraph	General solution of a homogeneous	4	November week second

pation on the board	detail on .board the		equation (the usual method) Specific solution of a homogeneous equation		
Give home work questi ons and sk for answe rs	Explain and write the lecture in detail on .the board	Learn the concepts of matrices and how to find the derivative to a with respect matrix	Use the method of changing constants to find the particular solution of a -non homogeneous differential .equation	4	November week third
Stude nt partici pation on the board	Lecture and discussion	Learn the basic concepts of scientific paragraph	Euler's method and its solution	4	November week fourth
Give home work questi ons and sk for answe rs	Explain and write the lecture	The student learns how to convert equations containing functions that cannot be solved using the previous methods into ,polynomial exponential, or trigonometric .equations	Numerical differentiation Newton's formulas for numerical differentiation	4	first January week
Daily exam	Students participate on the board and solve the .questions	Learn the basic concepts of scientific paragraph	Comprehensive review of the material and solutions to the curriculum questions and exercises	4	January week second
			Second month exam	4	third January week

Course Evaluation .11
The first month exam is (15) The second month exam is (15) exam, participation and assignments are 10... We Attendance, daily extract from them the effort score is 40

Final written exam of 60 .The final grade is 100	
Learning and teaching resources .12	
1 Sheikh -Mustafa, Ahmed Hassan Al . Halim, Alaa Khaled -Idris, Abdel -Rahman, Enaam Abdel-Ahmed, Abdel Rahman Hamid, ... & Musa Issa order -Mohammed. (2017). First ordinary differential equations and some methods of solving them and) their applicationsDoctoral dissertation Sudan University of , .(Science and Technology	Required textbooks (methodology if any)
7. **Abbas, & Omar Qasim Ali. order ordinary -Second .(2016) differential equations with fixed) and variable coefficients Doctoral dissertation -Al , College of ,Butana University .(Graduate Studies**	(Main References (Sources
.1Hussain, E. A., & Abdul-Abbass, Y. M. (2018). Solving Differential Equation by Modified Genetic Algorithms. Journal of University of Babylon for Pure and Applied Sciences, 26(10), 241-233. **2. Eljaneid, NHE (2004). Differential Equations on Manifolds (Doctoral dissertation, University of Nilein).**	Recommended supporting books and references (...scientific journals, reports)
	Electronic references, websites

Course Description Form

Group Theory :Course name .1
:Course code .2
Semester/Year: Course System .3
Date of preparation of this description: 9/27/2024 .4
classroom lectures person-Available forms of attendance: in .5
units 3.5 :(hours / Number of units (total 56 :(Number of study hours (total .6
(Diaa Nazim Ahmed) Name of the course supervisor .7
:Email Ayad Hamad Khalaf .Name: Drdheyaa.alangood@tu.edu.iq
Course objectives .8: **.Definition of binary operation and mathematical system -1** **.Definition of group, its types and the relationship between them -2** **.Definition of homology and relationship with the group -3**

9- ,Using different teaching methods, including lectures solving, cooperative learning, and -discussion, problem .others	Strategy

Course Structure .10

Evaluation method	Learning method	Required learning outcomes	Name of the unit or topic	Watches	The week
Daily exam	Lecture and	Learn the basic concepts of	binary process	3	February first week

	explanation of the topic on the board	scientific paragraph			
Questions and answers	Lecture and discussion	Learn the basic concepts of scientific paragraph	Sports system	3	February second week
Exam on the board	Explain and write the lecture	Learn the basic concepts of scientific paragraph	The group	3	third February week
Daily exam	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Subgroup	3	February fourth week
Give home work questions and ask for answers	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	rotating group	3	March first week
Daily exam	Lecture and discussion	Learn the basic of concepts scientific paragraph	division group	3	March second week
	Explain and write the lecture	Learn the basic concepts of scientific paragraph	Isomorphism	3	March third week
Student participation on the board	Explain and write the lecture in detail on .the board	Learn the basic concepts of paragraph scientific	Substitutional group	3	March fourth week
Give home work questions and ask for answers	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	finite group	3	April first week
Student participation on the board	Lecture and discussion	Learn the basic concepts of scientific paragraph	Klein group	3	April second week

Give home work questions and ask for answers	Explain and write the lecture	Learn the basic concepts of paragraph scientific	Substitution group	3	April third week
Daily exam	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Companion group	3	April 4th week
Student participation on the board	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Direct multiplication of groups	3	May first week
			Second month exam	4	May second week

Course Evaluation .11	
(First month exam out of (15) Second month exam out of (15 daily exam, participation and assignments out of 10.... We , Attendance .extract from them the effort score out of 40 Final written exam of 60 .The final grade is 100	
resources Learning and teaching .12	
1. .Zumar, written by Dr-Nazira Al Marouf	Required textbooks (methodology (if any
8. **Introduction to Group -Theory Ali Hassan Al Tamimi**	(Main References (Sources
	Recommended supporting books and references (scientific journals, (...reports
	Electronic references, websites

Course Description Form

Mathematical thinking :Course name .1
:Course code .2
Semester/Year: Course System .3
2024/17/9 :Date of preparation of this description .4
person classroom lectures-in :Available forms of attendance .5
: Number of hours: 30 hours, 2 study units .6
(Name of the course supervisor (if more than one name is mentioned .7
:Email Asst. Prof. Dr. Loay Musa Rawi :Name**loaytaref@tu.edu.iq**
Course objectives .8 **students to the concept of mathematical thinking and its Introducing -1 .importance to the educational process** **Focus on developing sound mathematical thinking and helping students to -2 .remove superficiality in thinking** **ary stageObjectives of mathematical thinking in the prim -3** **Definition of methods for developing mathematical thinking -4** **Developing children's thinking -5** **Mathematical thinking development programs -6**

Using different teaching methods, including lectures and .discussion	Strategy

Course Structure .10

Evaluation method	Learning method	Required learning outcomes	Name of the unit or topic	Watches	The week
Classroom performa	The lecture and discussion	Mathematical thinking	The concept of thinking	2	the first

nce					
Classroom performance	The lecture and discussion	Mathematical thinking	The Holy Quran and Mathematical Thinking	2	the second
Classroom performance	The lecture and discussion	Mathematical thinking	Theories explaining thinking styles and strategies	2	the third
Classroom performance	The lecture and discussion	Mathematical thinking	psychology Thinking in	2	Fourth
Classroom performance	The lecture and discussion	Mathematical thinking	Levels of thinking	2	Fifth
Classroom performance	The lecture and discussion	Mathematical thinking	Stages of teaching thinking	2	Sixth
Classroom performance	The lecture and discussion	Mathematical thinking	Foundations of teaching thinking	2	Seventh
Classroom performance	The lecture and discussion	Mathematical thinking	Types of thinking	2	The eighth
Classroom performance	The lecture and discussion	Mathematical thinking	Aspects of mathematical thinking and its applications	2	Ninth
Classroom performance	The lecture and discussion	Mathematical thinking	General -Midterm Exam Review	2	tenth
Classroom performance	The lecture and discussion	Mathematical thinking	Areas of motivation for mathematical thinking	2	atheistic ten
Classroom performance	The lecture and discussion	Mathematical thinking	Methods of developing mathematical thinking	2	twelfth
Classroom performance	The lecture and discussion	Mathematical thinking	Developing thinking skills in children	2	third the ten
Classroom performance	The lecture and discussion	Mathematical thinking	Factors that help develop mathematical thinking	2	Fourth ten

Classroom performance	The lecture and discussion	Mathematical thinking	General review	2	Fifth ten

Course Evaluation .11	
The first month exam is (15) The second month exam is (15) Attendance, daily exam, participation and assignments are 10... We from them the effort score is 40 extract Final written exam of 60 .The final grade is 100	
Learning and teaching resources .12	
Absi, Muhammad Mustafa -Al -1 Games and thinking in :((2009) Masirah, -mathematics, Dar Al .Amman **i, Abdul Wahid Kubais-Al -2 Hamid and Mudrikah Saleh Abdullah (2018): Mind and Thinking Maps in Teaching Mathematics, Arab Community .Library, Amman**	(Main References (Sources

Course Description Form

:Course name .1
MATLAB computer
:Course code .2
:Semester/Year .3
Course system
:Date of preparation of this description .4
15/9/2024
:Available forms of attendance .5
person classroom lectures-In
:(Number of study hours (total .6
units 2 :(hours / Number of units (total 28
(mentioned Name of the course supervisor (if more than one name is .7
:Email Ayad Hamad Khalaf .Name: Dr drayadlohebe@tu.edu.iq
Course objectives .8 1 Learn about the programming language used in MATLAB and how to write . 21. .and process data Learn how to use MATLAB to analyze 22. of algorithms to solve problems installation Understand how to understand the 23. .Students learn how to draw in BarnLight

10- Using different teaching methods, including solving, cooperative -lectures, discussion, problem .and others ,learning	Strategy

Course Structure .10

Evaluation method	Learning method	Required learning outcomes	Name of the unit or topic	Watches	The week
Student	Lecture and	Learn the basic conceptsof	Introduction to MATLAB	3	February first week

partici pation on the board	explanation topic of the on the board	MATLAB			
Questi ons and answe rs	Lecture and discussion	constants and learns variables via computer and using .MATLAB program	Constants and variables	3	February second week
Exam on the board	Explain and write the lecture	how to write an learn array in a program and what a comma and a semicolon .mean	Matrices and operations on matrices	3	February third week
Daily exam	work on My the computer	Learn the basic concepts of scientific paragraph	Multidimension al arrays	3	February fourth week
Give home work questi ons and sk for answe rs	Show in Datosho	Learn the basic concepts of scientific paragraph	Cell arrays	3	March first week
			First month exam	3	March second week
	Explain and write the lecture	basic Learn the concepts of scientific paragraph	Time series	3	March third week
Stude nt partici pation on the board	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Input and output sentences	3	March fourth week
Give home work questi ons and sk for answe rs	practical	Learn the basic concepts of scientific paragraph	Conditional sentences	3	April first week
Stude nt partici pation on the board	Lecture and discussion	Learn the basic concepts of paragraph scientific	Sentences of rotation and repetition	3	April second week

Give home work questions and ask for answers	Explain and write the lecture	Learn the basic concepts of scientific paragraph	Matlab data files	3	April third week
Daily exam	Show explanation by DataShop	Learn the basic concepts of scientific paragraph	bit and ,Group base insulator instructions	3	April 4th week
Student participation on the board	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Functions, subroutines, and graphs	3	May first week
			Second month exam	3	May second week

Course Evaluation .11	
The first month exam is (15) The second month exam is (15) We ...Attendance, daily exam, participation and assignments are 10 extract from them the effort score is 40 Final written exam of 60 .The final grade is 100	
Learning and teaching resources .12	
1 Howayda & ,.Sayed, H. M. S . Mahmoud Sayed. (2019). The effectiveness of using MATLABin developing achievement and skill in using it among female students of the differential and integral calculus Qura University. -course at Umm Al Journal of Mathematics Education, 8-51 ,(7)22 9. **Sobie, E. A. (2011). An introduction to MATLAB. Science signaling, 4(191), tr7-tr7 .** **1. Matlab, S. (2012). Matlab. The MathWorks, Natick, MA, 9.** **2. Higham, D. J., & Higham, N. J. (2016). MATLAB guide. Society for Industrial and**	Required textbooks (methodology if any)

Applied Mathematics	
1 Sayed, H. M. S., & Howayda . Mahmoud Sayed. (2019). The effectiveness of using MATLABin developing achievement and skill in using it among female students of the differential and integral calculus University. Qura-course at Umm Al Journal of Mathematics Education, 8-51 ,(7)22 10. **Sobie, E. A. (2011). An introduction to MATLAB. Science signaling, 4(191), tr7-tr7 .** **1. Matlab, S. (2012). Matlab. The MathWorks, Natick, MA, 9.** **2. Higham, D. J., & Higham, N. J. (2016). MATLAB guide. Society for Industrial and Applied Mathematics**	(Main References (Sources
1 Sayed, H. M. S., & Howayda . Mahmoud Sayed. (2019). The effectiveness of using MATLABin skill in developing achievement and using it among female students of the differential and integral calculus Qura University. -course at Umm Al Journal of Mathematics Education, 8-51 ,(7)22 11. **Sobie, E. A. (2011). An introduction to MATLAB. Science signaling, 4(191), tr7-tr7 .** **1. Matlab, S. (2012). Matlab. The MathWorks, Natick, MA, 9.** **2. Higham, D. J., & Higham, N. J. (2016). MATLAB guide. Society for Industrial and Applied Mathematics**	Recommended supporting books and references (...scientific journals, reports)
	Electronic references, websites

Course Description Form

Course name .1
literature Arabic

Course code .2
ARB01IL212
Semester/Year .3
2025 -First / 2024
Date this description was prepared .4
2024/9/18
(Available forms of attendance: attendance (giving lectures .5
(Number of study hours (total) / Number of units (total .6
hours 48 units 48
(Name of the course supervisor (if more than one name is mentioned .7
:Ahmed Turki Hamad Email .Dr .Prof :Nameahmed.hamaad @tu.edu.iq
Course objectives .8

• Instilling a love of poetic heritage in the students, especially in its golden minds of .ages • Arabic literature Knowing the impact of influences on the and religious and social . other peoples lives of • .Identify poetic themes • Knowing the most important poets of the .era and their poetic and artistic trends • poets of the most important Get to know the pictures • .... Memorizing poetic texts	Subject objectives
Teaching and learning strategies .9	
Monthly exam at the end of the - Lecture semester	Strategy

Course Structure .10

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	Watches	The week
Preparation and participation	The lecture	A brief history of literature	1	2	the first

Preparation and participation	The lecture	Learn -about pre Islamic, Islamic, Abbasid, and modern .society		4	the second
Preparation and participation	The lecture	Definition of some literary .terms		2	the third
Preparation and participation	The lecture	Poetry and poets		2	Fourth
Preparation and participation	The lecture	-pre Islamic poets		2	Fifth
Preparation and participation	The lecture	Islamic poets		2	Sixth
First month exam	Lecture and exam	Abbasid poets		2	Seventh
Preparation and participation	The lecture	Modern poets		2	The eighth
Preparation and participation	The lecture	Arabic prose		2	Ninth
Preparation and participation	The lecture	The positions		2	tenth
Preparation and participation	The lecture	The story		2	eleventh
Second month exam	Lecture and exam	The novel		2	twelfth

Course Evaluation .11	
out of 100 according to the tasks assigned to the student, The grade is distributed .such as daily preparation, daily, oral, monthly and written exams, reports, etc	
Learning and teaching resources .12	
.Dr , History of Arabic Literature .Shawqi Dayf	(Required textbooks (methodology if any
Modern Arabic Literature, Faeq .Hamdani-Mustafa, Salem Al	(Main References (Sources
International, Arab and Iraqi reviewed journals-peer	Recommended supporting books and (...references (scientific journals, reports
Iraqi universities websites and basic education colleges website	websites ,Electronic references

Course Description Form

Course name .1	
Professional ethics	
Course code .2	
Professional ethics	
Semester/Year .3	
Chapter One/Fourth	
Date this description was prepared .4	
17/9/2024	
Available forms of attendance .5	
(In person (weekly	
(Number of study hours (total) / Number of units (total .6	
(Name of the course supervisor (if more than one name is mentioned .7	
M.M. Elaf Rabie Ahmedelaf.ahmed@tu.edu.iq	
• as good ethics , Ensuring positive results in business contribute to the development of the individual in his work, and thus the development of the institution. emotional security, as those around you trust Providing your actions and abilities, which contributes to increasing your opportunities and professional growth. Enhancing teamwork, as good ethics create a strong bond with others, which improves group performance	Subject objectives
Teaching and learning strategies .9	
professional ethics at the theoretical and practical lectures on The week .each same time, for two hours	Strategy

Course Structure .10

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	Watches	The week
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Definition and explanation	Ethics of the teaching profession and its impact on society	2	the first
Daily, monthly	Paper lecture Display	Types of religious,	Professional ethics sources	2	the second

exams, homework	screen Blackboard and pen	political, social and economic sources			
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Educational and family foundations	Foundations and standards of professional ethics	2	the third
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Tolerance, patience, sincerity and honesty are considered the most important ethical principles in .the profession	Principles of ethics of the teaching profession	2	Fourth
Daily, monthly exams, homework	Paper lecture Display screen board Black and pen	Honesty in his sources and information, a cheerful face, modesty, patience and lack of discrimination	Characteristics that must be available in the teacher	2	Fifth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	deviant behavior cheating bribery	unethical behavior	2	Sixth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	How to Solve Problems Ethically	Making ethical decisions	2	Seventh
					The eighth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Its concept and importance	Professional discipline	2	Ninth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Teacher, Curriculum and Groups	Factors of developing social responsibility	2	tenth
Daily,	Paper lecture	Its types and	Unethical	2	eleventh

monthly exams, homework	**Display screen Blackboard and pen**	**how to treat it**	**phenomena in education**		
Daily, monthly exams, homework	**Paper lecture Display screen Blackboard and pen**	**Its ruling, causes and treatment**	**cheating on exam**	**2**	**twelfth**
Daily, monthly exams, homework	**Paper lecture Display screen Blackboard and pen**	**Its causes, patterns and atmenttre**	**Bribery and job respect**	**2**	**thirteenth**
Second month exam					**fourteenth**
End of term exam					**fifteenth**

Course Evaluation .11	
:Students are evaluated during the semester according to the following criteria • First month exam of 15, second month exam of 15, daily exam and attendance and participation of 10 • Annual quest of 40 • Final exam of 60 • Final score out of 100	
Learning and teaching resources .12	
• sion.. The book of ethics of the teaching profes Bishri 2019-written by Qadriya Muhammad Al	Required Textbooks
• Professional Ethics Book... written by Nasser bin Rais 2016-Saud Al	Main References
• nothing	Recommended supporting books and references
nothing	Electronic references, websites

Course Description Form

Course name: Educational Leadership and Management .1	
:Course code .2	
:Semester/Year .3	
Date of preparation of this description: 9/17/2024 .4	
person classroom lectures-in : Available forms of attendance .5	
Number of units (total): 2 / 30 :(Number of study hours (total .6	
(Name of the course supervisor (if more than one name is mentioned .7	
:M.M. Firas Ali Abdullah Emailfiras.abdullah@tu.edu.iq	
Course objectives .8	
1) Introduces students to basic leadership concepts, skills and .environment their importance in the educational **2) Teaching the skills necessary to manage educational institutions effectively, including planning, directing and .organizing** **3) Encourage students to analyze educational problems and .make decisions** **4) d analyze Ability to evaluate institutional performance an data to improve educational outcomes**	**Subject objectives**
Teaching and learning strategies .9	
Method of giving lectures -1 **Discussion method -2**	**Strategy**

Course Structure .10

Evaluation method	Learning method	Required learning outcomes	Name of the unit or topic	Watches	The week

Extracurricular homework and exercises	The lecture	Educational leadership refers to the direction and management of educational institutions to achieve specific educational goals.	Educational leadership (its concept and (development	2	the first
Extracurricular homework and exercises	The lecture	To support teachers, students and enhance quality in educational administration	Educational leader tasks	2	the second
Extracurricular homework and exercises	The lecture	Focuses on the innate traits of . great leaders	Leadership Theories	2	the third
Extracurricular homework and exercises	The lecture	Refers to certain characteristics that characterize .successful leaders	Roles of educational leader	2	Fourth
		It includes traditional and modern management and emphasizes the importance of evaluation and .quality	Patterns of educational leadership and quality in educational administration	2	Fifth
		It is related to the leader's adaptation to different .situations	Leadership Theories: Great Man Theory and Trait Theory	2	Sixth
Extracurricular homework and exercises	The lecture	It is one of the leadership behavior models that highlights the relationship Leader between and follower 1	Situational theory, interactional theory, leadership behavior, and the administrative grid model as one of the models of	2	Seventh

			leadership behavior		
			First month exam	2	The eighth
Extracurricular homework and exercises	The lecture	Roles vary to include supervision, support, and .quality promotion	The importance of educational administration	2	Ninth
Extracurricular homework and exercises	The lecture	Ranging from traditional to modern management	Types of educational administration	2	tenth
Extracurricular homework and exercises	The lecture	Educational administration is an essential element for achieving educational goals and ensuring .quality	concept of The educational administration	2	eleventh
Extracurricular homework and exercises	The lecture	To support teachers, students and enhance quality in educational administration	Educational administration theories	2	twelfth
		Includes planning, organizing, directing, and ng, as well evaluati .as supervision	Director's tasks, evaluation and quality in educational performance	2	thirteenth
		Includes evaluation of the principal, teacher, and students to ensure the achievement of the required curriculum outcomes. 1	Sample evaluation forms related to principal) evaluation, teacher evaluation, and student (evaluation	2	fourteenth
			Second month exam	2	fifteenth
Course Evaluation .11					

added together to Extracurricular assignments of 10 + an exam of 10 for each month are .get an effort score of 40	
Learning and teaching resources .12	
Ismail. (2021). Educational administrative leadership Bayda city-among secondary school principals in Al)Doctoral dissertation Mukhtar -Omar Al , (University	Required textbooks (methodology (if any
Jaber. (1993). Educational -Abdullah Abdul Latif Al leadership: a concept that precedes application.	(Main References (Sources
Hanini, W., & Wesal. -Tayeh Abdel Rahim Al Obstacles to leading change in educational .(2023) administration from the perspective of principals of government secondary schools in the Middle Governorate of the Gaza Strip and ways to address the Faculty of Education (Assiut), them. Journal of . 240-221 ,(8)39	Recommended supporting books and references (scientific journals, (...reports
	Electronic references, websites

Course Description Form

Linear Programming :Course name .1
:Course code .2
Semester/Year: Course System .3
Date of preparation of this description: 9/27/2024 .4
person classroom lectures-Available forms of attendance: in .5
units 3.5 :(hours / Number of units (total 56 :(Number of study hours (total .6
(Diaa Nazim Ahmed) Name of the course supervisor .7
:Email Diaa Nazim Ahmed .Name: M.Mdheyaa.alangood@tu.edu.iq
Course objectives .8: **.Study the content of linear programming -1** **.Knowing its features, methods and problems -2** **Using simple graphical and algebraic solution methods, the north corner -3 .method** **.Linking neural networks with linear programming -4**

1- Using different teaching methods, including lectures, solving, cooperative learning, and -discussion, problem .others	Strategy

Course Structure .10

Evaluation method	Learning method	Required learning outcomes	Name of the unit or topic	Watches	The week
Daily	Lecture	Learn the basic	Brief	3	February first

exam	and explanation of the topic on the board	concepts of scientific paragraph	introduction to linear programming		week
Questi ons and answe rs	Lecture and discussion	Learn the basic concepts of scientific paragraph	Linear Programming Methods and Features	3	February week second
Exam on the board	xplain and E write the lecture	Learn the basic concepts of scientific paragraph	Linear Programming Problems and Solutions	3	February third week
Daily exam	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Graphical method	3	February fourth week
Give home work questi ons and ask for answe rs	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Exercises solution	3	March first week
Daily exam	Lecture and discussion	Learn the basic concepts of scientific paragraph	Algebraic method	3	March second week
	Explain and write the lecture	Learn the basic concepts of scientific paragraph	Exercises solution	3	March third week
Stude nt partici pation on the board	Explain and write the lecture in detail on .board the	Learn the basic concepts of scientific paragraph	The simplified way	3	March fourth week
Assig 43 n questi ons and 43 ask to solve .them	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	First month exam	3	April first week
4 M Share 4 studen	Lecture and discussion	Learn the basic concepts of scientific paragraph	corner North method	3	April second week

ts on the board					
Give home work questions and sk for answers	Explain and write the lecture	Learn the basic concepts of scientific paragraph	Exercises solution	3	April third week
Daily exam	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Transport method	3	April 4th week
Student partici ation on the board	Explain and write the lecture in detail on .the board	Learn the basic concepts of paragraph scientific	Second month exam	3	May first week
			Networks and their connection with linear programming	3	May second week

Course Evaluation .11	
(First month exam out of (15) Second month exam out of (15 daily exam, participation and assignments out of 10.... We , Attendance .extract from them the effort score out of 40 Final written exam of 60 .The final grade is 100	
resources Learning and teaching .12	
Introduction to Linear .1 **Abdul .Dr Programming Models** **Jabbar Khader** **Introduction to Operations -2** **Research Dr. Hamdi Taha** **Linear Programming and -3** **Operations Research Muhammad** **Safadi-Salem Al**	Required textbooks (methodology (if any
	(References (Sources Main

	Recommended supporting books and references (scientific journals, (...reports
	Electronic references, websites

Course Description Form

Specialized Teaching Methods, Fourth :Course name .1
:Course code .2
Semester/Year: Course System .3
2024/17/9 :Date of preparation of this description .4
person classroom lectures-Available forms of attendance: in .5
units 3 :(hours / Number of units (total 45 :(Number of study hours (total .6
(course supervisor (if more than one name is mentioned Name of the .7
:Email Asst. Prof. Dr. Loay Musa Rawi :Name**loaytaref@tu.edu.iq**
Course objectives .8 **.Teaching students the basic concepts in teaching methods -1 of mathematics for primary Teaching students teaching methods in the field -2 .education** **.Teaching students some educational games in the field of mathematics -3** **Teaching students successful planning of mathematics lessons for the -4 primary stage**

1- lectures, Using different teaching methods, including solving, cooperative learning, and -discussion, problem .others	Strategy

Course Structure .10

Evaluation method	Learning method	Required learning outcomes	Name of the unit or topic	Watches	The week
Classroom performa	The lecture and	Mathematics teaching methods	Objectives of teaching mathematics in	3	the first

nce	discussio n		primary school		
Classroo n performa nce	Lecture and discussio n	Mathematics teaching methods	Classification of specific goals, how to formulate them, and modern trends in this regard	3	the second
Classroo n performa nce	The lecture and discussio n	Mathematics teaching methods	and coordinating sports topics	3	the third
Classroo n performa nce	The lecture and discussio n	Mathematics teaching methods	And compare it to the mathematics books used in .primary school	3	Fourth
Classroo n performa nce	The lecture and discussio n	Mathematics teaching methods	Modern trends in the presentation and coordination of sports topics	3	Fifth
Classroo n performa nce	The lecture and discussio n	Mathematics teaching methods	First month exam	3	Sixth
Classroo n performa nce	The lecture and discussio n	Mathematics teaching methods	Methods of low student achievement in mathematics and its treatment	3	Seventh
Classroo n performa nce	The lecture and discussio n	Mathematics teaching methods	Therapeutic methods problems of for some teaching mathematics in the primary stage and their treatment	3	The eighth
Classroo n performa nce	The lecture and discussio n	Mathematics teaching methods	Planning for teaching mathematics	3	Ninth
Classroo n performa nce	The lecture and discussio n	Mathematics teaching methods	Different teaching methods in mathematics and modern trends in it	3	tenth
Classroo n performa nce	The lecture and discussio n	Mathematics teaching methods	Teaching mathematical and geometric concepts	3	eleventh

Classroom performance	The lecture and discussion	Mathematics teaching methods	Second month exam	3	twelfth
Classroom performance	The lecture and discussion	Mathematics teaching methods	Denz model in games	3	thirteenth
Classroom performance	The lecture and discussion	Mathematics teaching methods	Piaget's model and mathematics education	3	fourteenth
Classroom performance	The lecture and discussion	Mathematics teaching methods	Exercises and examples for review	3	fifteenth

Course Evaluation .11	
The first month exam is (15) The second month exam is (15) Attendance, daily exam, participation and assignments are 10... We extract from them the effort score is 40 Final written exam of 60 .final grade is 100 The	
Learning and teaching resources .12	
Methods of teaching sports in teacher training institutes	Required textbooks (methodology if any)
Educational methods and models in teaching mathematics -1 **Science for Teaching Understanding: A Constructivist Vision by Dr. Kamal Abdel Hamid Zeitoun -2**	(Main References (Sources
1	Recommended supporting books and references (...scientific journals, reports)
	Electronic references,

	websites

Course Description Form

:Course name .1
analysis Nodal
:Course code .2
:Semester/Year .3
Course system
:Date of preparation of this description .4
17/9/2024
:Available forms of attendance .5
person classroom lectures-In
:(Number of study hours (total .6
units 3.5 :(hours / Number of units (total 56
(Name of the course supervisor (if more than one name is mentioned .7
:Email Ayad Hamad Khalaf .Name: Drdrayadlohebe@tu.edu.iq
Course objectives .8 1 Learn the basic concepts in complex analysis in complex analysis such as complex numbers . and complex functions 24. .Use different mathematical laws to analyze complex functions such as differentiation 25. Solve complex functions and explore possible solutions. Enhance analytical thinking skills by .solving complex problems 26. functions such as continuity, differentiation and integration in the Understand properties of .complex domain

11- Using different teaching methods, including solving, cooperative -lectures, discussion, problem .learning, and others	Strategy

Course Structure .10

Evaluation method	Learning method	Required learning outcomes	Name of the unit or topic	Watches	The week
Daily exam	Lecture and	Learn the relationship between	Complex numbers	4	September week third

	explanation of the topic on the board	complex numbers and the set of real numbers, the difference between them, and the ,addition subtraction, multiplication, and division of real .numbers			
Questions nd a answers	Lecture and discussion	Learn the basic concepts of scientific paragraph	Complex numbers as a field	4	September week fourth
Exam on the board	Explain and write the lecture	Learn the basic of finding concepts the values of unknowns as well as knowing De Moivre's Theorem and its .result	Finding constants and some theorems to solve complex functions	4	first October week
Daily exam	Explain and write the lecture in detail on .the board	the laws of Learn metric space and their connection with .real numbers	Complex numbers as metric space	4	October week second
Give home work questions and sk for answers	Explain and write the lecture in detail on .the board	the laws of Learn metric space and their connection with .real numbers	as numbers metric space	4	third October week
Daily exam	Lecture and discussion	Learn the basic concepts of paragraph scientific	Analytical functions		fourth October week
			First month exam	4	first November week
Student partici ation on the board	Explain and write the lecture in detail on .board the	Learn the basic concepts of scientific paragraph	Harmonic functions and harmonic conjugates	4	November week second
Give home work questions and	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	derivation The of the contract	4	November week third

sk for answers					
Student participation on the board	Lecture and discussion	Learn the basic concepts of scientific paragraph	Numerical integration	4	November week fourth
Give home work questions and sk for answers	and Explain write the lecture	Learn the basic concepts of scientific paragraph	Cauchy and Riemann equations	4	first December week
Daily exam	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Cauchy and Riemann equations and some applications	4	December week second
			Second month exam	4	December week third

Course Evaluation .11

The first month exam is (15) The second month exam is (15)

Attendance, daily exam, participation and assignments are 10... We extract from them the effort score is 40

exam of 60 Final written

.The final grade is 100

Learning and teaching resources .12

Ikhlas Elias Abdel Aziz, Prof. Dr. Azzou, and Asst. M. -Enas Younis Al .(2023Taghreed Hamdoun Shukr. (The invention of the inventor based ivergent thinking strategies and on d its impact on obtaining the fourth grade certificate, mathematics department. Journal of Basic 344-Sciences, 10 (17), 323	Required textbooks (methodology if any)
12. **Surface, R. Riemann Surface :AuthorsArbarello, E.; Cornalba, M.; Griffiths, P.A.; and Harris, J. :Source**	

Geometry of Algebraic Curves, I. New York: Springer-Verlag, 1985. Part and page:... 2018-10-14 **1Abramowitz, M., & Stegun, I. A. (2021). Vapnik-Chervonenkis Dimension.**	
Ikhlas Elias Abdel Aziz, Prof. Dr. Azzou, and Asst. M. -Al Enas Younis .(2023Taghreed Hamdoun Shukr. (The invention of the inventor based on divergent thinking strategies and its impact on obtaining the fourth grade certificate, mathematics department. Journal of Basic 344-Sciences, 10 (17), 323 13. **Surface, R. Riemann Surface :AuthorsArbarello, E.; Cornalba, M.; Griffiths, P.A.; and Harris, J. :Source Geometry of Algebraic Curves, I. New York: Springer-Verlag, 1985. Part and page:... 2018-10-14** **1Abramowitz, M., & Stegun, I. A. (2021). Vapnik-Chervonenkis Dimension.**	(Main References (Sources
Ikhlas Elias Abdel Aziz, Prof. Dr. Azzou, and Asst. M. -Enas Younis Al .(2023Taghreed Hamdoun Shukr. (The invention of the inventor based ergent thinking strategies and on div its impact on obtaining the fourth grade certificate, mathematics department. Journal of Basic 344-Sciences, 10 (17), 323 14. **Surface, R. Riemann Surface :AuthorsArbarello, E.; Cornalba, M.; Griffiths, P.A.; and Harris, J. :Source Geometry of Algebraic Curves, I. New York: Springer-Verlag, 1985. Part and page:... 2018-10-14** **1Abramowitz, M., & Stegun, I. A. (2021). Vapnik-Chervonenkis Dimension.**	Recommended supporting books and references (...scientific journals, reports)
	Electronic references, websites

Course Description Form

Course name .1
Topology
Course code .2
Topology
Semester/Year .3
Chapter One/Fourth
Date this description was prepared .4
2024/17/9
Available forms of attendance .5
(In person (weekly
(Number of study hours (total) / Number of units (total .6
(course supervisor (if more than one name is mentioned Name of the .7
:Name: Ms. Haneen Adel Abdelrahman Emailhaneen19921006@gmail.com
Course objectives .8

• Definition of real numbers and restricted sets • Open and closed groups Distinguish between • And its types Definition of topological space	Subject objectives
Teaching and learning strategies .9	
In the week .Receive four hours of theoretical topology lectures	Strategy

Course Structure .10

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	Watches	The week
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Real numbers	Introduction and review of real numbers and their .properties	4	the first
Daily, monthly exams, homework	lecture Paper Display screen Blackboard and pen	Restricted groups	Restricted groups	4	the second
Daily,	Paper lecture	absolute	absolute value	4	the third

monthly exams, homework	Display screen Blackboard and pen	value			
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Real numbers as a field	Real numbers as a field	4	Fourth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Quantum axiom	Axiom of Perfection	4	Fifth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	of Topology real numbers	Topology of real numbers	4	Sixth
Midterm exam					Seventh
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Near the point	Near the point	4	The eighth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Operations on groups	Union and intersection of open and closed sets	4	Ninth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Topological spaces	Topological Types -space of topology	4	tenth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	outside	Outside the topological space	4	eleventh
Daily, monthly exams, homework	Paper lecture Display screen Blackboard pen and	Metric spaces	Metric space and cover sets	4	twelfth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Sequences	Sequences, Sequences of Real Numbers	4	thirteenth
Second month exam					fourteenth
End of term exam					fifteenth

Evaluation Course .11	
:Students are evaluated during the semester according to the following criteria • First month exam of 15, second month exam of 15, daily exam and attendance and participation of 10 • Annual quest of 40 • Final exam of 60 • Final score out of 100	
Learning and teaching resources .12	
• Introduction to General Topology / Dr. Samir -Education Bashir Hadid / Faculty of University of Mosul	Required Textbooks
• Introduction to Topology / Dr. Ghaffar Hussein Private Zarqa -Musa / Faculty of Science University	Main References
nothing	Electronic references, websites

Course Description Form

Course name .1	
Environmental and health education	
Course code .2	
(Environmental and Health Education (Theoretical	
Semester/Year .3	
/Two Chapter2025	
description was prepared Date this .4	
20/1/2025	
Available forms of attendance .5	
(In person (weekly	
(Number of study hours (total) / Number of units (total .6	
hours 30	
Course Administrator Name .7	
Name: M.M. Khairallah Faraj Subhan Email:khairullah.f.sabhan@tu.edu.iq	
Course objectives .8	
• Environmental and health of importance Definition .And its role in daily life education • Introducing the student to the basic concepts of .environmental health • principles and rules of health and the Identify .environmental safety for the individual • With healthy habits of the individual and Definition .ways to treat bad habits • .Definition of first aid • Definition of epidemics resulting from pollution and .health harmful to public	Subject objectives
Teaching and learning strategies .9	
Use the standard method (lecturing) / feedback	Strategy

method / discussion and dialogue method / problem solving method	

Course Structure .10

Evaluation method	Learning method	Name of the topic unit or	Required learning outcomes	Watches	The week
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Public health concept and principles	- Definition of environmental education - and health education objectives - Health concept - public health - Public health components - Public health goals	2	January
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Family health A	- Family health concept - Maternity and Child Care - Maternity and Child Care Objectives	2	February
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Family health for	- pregnancy -Pre maternal health care curriculum - Child care	2	February
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	School health	- School health concept - School health goals - School health services - The importance of the opportunity between lessons - The role of the teacher in the 1 health care of his students	2	February
Daily,	Paper lecture	Food	- Nutrients	2	February

monthly exams, homework	Display screen Blackboard and pen	A	- Food Jobs - Vitamins -		
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	**Food for**	- Symptoms of malnutrition in children - Malnutrition diseases - food poisoning -	2	March
First month exam				2	March
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Communicable diseases	- Pulmonary tuberculosis - diphtheria - whooping cough - diarrhea - polio	2	March
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Epidemic diseases	- swine flu - AIDS	2	March
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Some harmful habits Its effect and the diseases it causes	- Smoking , alcohol, drug addiction, taking medication without consulting a doctor	2	March
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	first aid	- Paramedic duties - Bandage - Ligaments - Wounds - Bleeding	2	April
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	first aid	- Fractions - Burns - Epilepsy - drowning 1	2	April
Daily, monthly	Paper lecture Display	Home Pharmacy	- Home Pharmacy - Pharmacy	2	April

exams, homework	screen Blackboard and pen		Contents		
Second month exam				2	April
Daily, monthly ,exams	Paper lecture Display screen Blackboard and pen	General review of the prescribed curriculum	- Introducing the student to environmental and health education and its importance - A focused study on food, types of diseases and first aid	2	May

Course Evaluation .11

Students are evaluated during the semester according to the following criteria:

- Daily exam and / 25 Second month exam from / 25 First month exam from 15 attendance and participation from
- Quest of 40
- Final exam of 60
- Final score out of 100

and teaching resources Learning .12

/ Environmental Health: From Global to Local .rd ed3 Howard Fromkin **Environmental Health: From Global to Local, 3rd Edition**	Required textbooks (methodology if (any
Ansari: Environmental –Ali Askar, Muhammad Al Psychology, Kuwait, Scientific Research House, .st ed., 19831	(Main References (Sources
• Chawla, Louise & Cushing, Debra. (2007). Education for strategic environmental behaviour. Environmental Education Research, 13(4), 437–452. Environmental Education Research – ENVIRON EDUC RES. 13. 437–452.	Recommended supporting books and references (scientific journals, (...reports

10.1080/13504620701581539 . • em of environmental Fadia Hamed: The probl pollution and the role of education in confronting it, Master's thesis, Faculty of .Education, Menoufia University, 1990	
• https://www.wiley.com/en-gb • https://ar.wikipedia.org/wiki • https://scholar.google.com/schhp?hl=ar • https://shamela.ws/	Electronic references, websites

Course Description Form

ourse nameC .1	
Arabic	
Course code .2	
ARB01G111	
Semester/Year .3	
2025 - 2024 / Second	
Date this description was prepared .4	
20/1/2025	
Available forms of attendance .5	
person lectures-Weekly in	
(Number of study hours (total) / Number of units (total .6	
.hours per week (2) hours per semester, at a rate of (24)	
(Name of the course supervisor (if more than one name is mentioned .7	
: Email A.M. Dr. Salam Abdul Jassim Drsalam2006@gmail.com	
Course objectives .8	
• .and literary heritage Teaching students linguistic • Preparing a university teacher capable of conveying information to students through weekly exams and . intensive education • the importance of the Arabic Teaching the student . language and its beauty in poetry and prose • Spreading intellectual and cultural awareness by strengthening the student's ability to criticize common .linguistic errors and how to correct them	Subject objectives
and learning strategies Teaching .9	
Monthly and end of -Lecture semester exam	Strategy 1

Course Structure .10

Evaluation method	Learning method	Name of the unit or topic	Required learning	Watches	The week

			outcomes		
Preparation and participation	**The lecture**	Parts of Speech Noun, Verb - and Adjective	**understand and apply**	**2**	**the first**
Preparation and participation	**The lecture**	Types of - knowledge science and pronouns	**understand and apply**	**2**	**the second**
Preparation and participation	**The lecture**	**Demonstrative - pronouns relative pronouns**	**understand and apply**	**2**	**the third**
Preparation and participation	**The lecture**	**Definite noun with al and definite noun with idafa**	**understand and apply**	**2**	**Fourth**
Preparation and participation	**The lecture**	**Conscience**	**understand and apply**	**2**	**Fifth**
Preparation and participation	**The lecture**	**Singular, dual and its declension**	**understand and apply**	**2**	**Sixth**
First month exam	**Lecture and exam**	**Sound masculine plural and its declension**	**understand and apply**	**2**	**Seventh**
Preparation and participation	**The lecture**	**Sound feminine plural and its parsing**	**understand apply and**	**2**	**The eighth**
Preparation and participation	**The lecture**	**Broken -plurals plurals of paucity and abundance**	**understand and apply**	**2**	**Ninth**
Preparation and participation	**The lecture**	**The five names**	**understand and apply**	**2**	**tenth**
Preparation and participation	**The lecture**	**Literature: Explanation of the Mu'allaqat of Zuhair ibn Abi Salma**	**understand and apply**	**2**	**eleventh**
Second month exam	**Lecture and**	**Ibn Zaydoun's verses - poem**	**understand and apply**	**2**	**twelfth**

	exam	**-Al from Surat Qamar**			

Course Evaluation .11	
The grade is distributed out of 100 according to the tasks assigned to the student, .such as daily preparation, daily, oral, monthly and written exams, reports, etc	
and teaching resources Learning .12	
	(Required textbooks (methodology if any
The grammatical application of Abdo Al Rajhi. A series of .literature books by Shawqi Dayf	(Main References (Sources
International, Arab and Iraqi reviewed journals-peer	Recommended supporting books and (...reports ,references (scientific journals
Websites of Iraqi universities and the websites of the , colleges of basic education the comprehensive as well as . library and the Noor Library	Electronic references, websites

Description Form Course

Course name .1	
English 1	
Course code .2	
without	
Semester/Year .3	
first year -Second semester	
Date this description was prepared .4	
2025 - 2024	
20**Available forms of attendance .5**/1/2025	
person + online-In	
(total) / Number of units (total) Number of study hours .6	
2	
(Name of the course supervisor (if more than one name is mentioned .7	
:Name: Jumaa Jassim Mustafa Emailjumaa_jasim@tu.edu.iq	
Course objectives .8	
:This course aims to -1 English language as a means of communication and learning in their specializations. -2 Understanding the reading material and creating a connection between its various components. -3 .Using colloquial English in their daily lives -4 Start and continue short and simple conversations. -5 Write a sentence that is correct in structure and meaning. -6 Graduating highly educated, qualified and distinguished cadres.	Subject objectives
Teaching and learning strategies .9	
– **Lectures** – **discussions** – **Submit questions** – **cases Scientific** – **Reports and research**	Strategy

Course Structure .10					
Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	Watches	The week
	discussions	Unit 1/ Introduction Hello, 2 1 Vocabulary, Everyday English		2	1
	discussions	Unit 2 /Your World Countries, 2 2 Listening, Questions, Adjectives		2	2
	discussions	Reading, Listening, Everyday 2 3 English, Don't forget		2	3
	discussions	Unit 3/ All about you 2 4 Jobs, Questions and Negatives, Negatives and Questions, Listening Questions, Listening		2	4
			exam The	2	5
	discussions	Unit 4 / Family and Friends 2 5 Possessives, Vocabulary, has/have, Listening		2	6
	discussions	Reading, Pronunciation, 2 6 Everyday English		2	7
	discussions	Unit 5 / The way I live, 2 8 Sports / food / drink, Things I like, Present simple		2	8
	discussions	Listening, Vocabulary, Everyday 2 9 English, Don't forget		2	9
			exam The		10
	discussions	Unit 6 / Every Day 2 10 The Time, Present Simple- he/ she/ it Do/ does/ am/ is/ are		2	11
	discussions	Unit 7 / My Favorites 2 12 Question (Why? Because)		2	12
	discussions	Present Continuous Tense		2	13
	discussions	Present Perfect Tense		2	14
			exam The		

Course Evaluation .11	
according to the tasks assigned to the student, such The grade is distributed out of 100 .as daily preparation, daily, oral, monthly and written exams, reports, etc	
Learning and teaching resources .12	
Beginner- New Headway Plus- student's book + workbook by John and Liz Soar	Required textbooks (methodology if any)
nothing	Main References (Sources)
nothing	Recommended supporting books and references (scientific (...journals, reports
https://learnenglish.britishcouncil.org/english-grammar-reference/present-simple **https://www.englishpage.com/verbpage/presentcontinuous.html** **https://www.ef.com/wwen/english-resources/english-grammar/present-perfect/**	Electronic references, websites

Fundamentals of Education / Course Name
/ Course code
2025 -First Stage Second Semester 2024 / Semester / Year
2025/23/1 : Date of preparation of this description
person delivery with the possibility of electronic access-attendance forms / In Available
Number of study hours (total) / Number of units (total) / Three study hours, three units
(Name of the course administrator (if more than one name is mentioned
:Email Dr. Saber Taha Yassin .Prof .Asst :Namesapr87@tu.edu.iq
objectives Course

Learn the basics of education and teaching from a theoretical .perspective and practical aspects	Subject objectives
Teaching and learning strategies	
theoretical material with an explanatory explanation of the steps and Providing .method of achieving research in the educational aspect	Strategy

Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	Watches	The week
Daily exam	Lecture and explanation of the topic on the board	Learn the basic concepts of scientific paragraph1	Education concept) and (importance	3	first the
Questions and	Lecture and	Learn the basic	The	3	the

answers	discussion	concepts of scientific paragraph	relationship between education and upbringing		second
Exam on the board	Explain and write the lecture	Learn the basic concepts of scientific paragraph	Similarities, differences and relationship between education, learning and teaching	3	the third
Daily exam	Explain and write the lecture in detail on the .board	Learn the basic concepts of scientific paragraph	Education in the Arab Islamic heritage	3	Fourth
Give homework questions and ask for answers	Explain and the write lecture in detail on the .board	Learn the basic concepts of scientific paragraph	Principles of Education	3	Fifth
Daily exam	Lecture and discussion	Learn the basic concepts of scientific paragraph	The roles of the teacher in light of modern educational trends	3	Sixth
Student participation on the board	Explain and write the lecture	Learn the basic concepts of scientific paragraph	Teaching Profession Licenses Concept) and (Standards	3	Seventh
Student participation on the board	Explain and write the lecture in detail on the .board	Learn the basic concepts of scientific paragraph	Basic requirements for a teacher's success in his	3	The eighth

			profession		
Give homework questions and ask for answers	Explain and write the lecture in detail on the .board	Learn the basic concepts of scientific paragraph	Characteristics of a successful teacher	3	Ninth
Student participation on the board	Lecture and discussion	Learn the basic concepts of scientific paragraph	Class Guiding Teacher	3	tenth
Give homework questions and ask for answers	Explain and write the lecture	Learn the basic concepts of scientific paragraph	Its concept and roles	3	eleventh
Daily exam	Explain and write the lecture in e detail on th .board	Learn the basic concepts of scientific paragraph	Basic education in Iraq: concept and stages	3	twelfth
Student participation on the board	Explain and write the lecture in detail on the .board	Learn the basic concepts of scientific paragraph	Models of basic education in some countries of the world (Qatar)	3	thirteenth
Daily exam	Explain and write the lecture in detail on the .board	Learn the basic concepts of scientific paragraph	Models of basic education in some countries of the world (Japan)	3	fourteenth
Student participation on the board	Explain and write the lecture in detail on the .board	Learn the basic concepts of scientific paragraph	Models of basic education in some countries of the world (Britain)	3	fifteenth
Course Evaluation					

to the tasks assigned to the student, such as daily The grade is distributed out of 100 according .preparation, daily, oral, monthly and written exams, reports, etc	
Learning and teaching resources	
Fundamentals of education	(Required textbooks (methodology if any
Education	(Main References (Sources
Educational research methods and principles	Recommended supporting books and references (scientific journals, reports, (.etc
Websites about education	Electronic references, websites

Course Description Form

:Course name .1	
Islamic education	
:Course code .2	
First stage Islamic education	
:Semester/Year .3	
Course system	
:Date of preparation of this description .4	
2025/1/10	
: Available forms of attendance .5	
immanence Safiya Lectures	
:(total) Number of study hours (total) / Number of units .6	
hours 30	
(Name of the course supervisor (if more than one name is mentioned .7	
Prof. Dr. Ahmed Abdul Mohammeddrahmadabd@tu.edu.iq	
Course objectives .8	
year students the principles of −The course aims to teach first belief in terms of identifying the attributes of God correct Almighty, the attributes of the prophets and messengers, and .identifying the pillars of faith	Subject objectives
Teaching and learning strategies .9	
Method of giving lectures **-1** Discussion method -2 Test -3	Strategy

Course Structure .10

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	Watches	The week
Class room	Lecture and	Definition of the principles of religion,	knowledge and	2	the first

performance	discussion	the names of this science and their causes	understanding		
Performance The class	The lecture and discussion	Pillars of faith for Muslims	Knowledge and understanding	2	the second
Performance The class	The lecture and discussion	Atheism and its causes	Knowledge and understanding	2	the third
Performance The class	The lecture and discussion	The human mind needs the guidance of prophecy	Knowledge and understanding	2	Fourth
Performance The class	The lecture and discussion	Requirements of prophecy and characteristics of prophets and messengers	Knowledge and understanding	2	Fifth
Performance The class	The lecture and discussion	Revelation and its types	Knowledge and understanding	2	Sixth
Performance The class	The lecture and discussion	The Holy Quran and the fulfillment of the conditions of its miracle	Knowledge and understanding	2	Seventh
Monthly exam	Monthly exam	Bad ending and actions are judged by their endings	Knowledge and understanding	2	The eighth
Performance The class	The lecture and discussion	The Hour and its signs	Knowledge and understanding	2	Ninth
Performance	The lecture and	Pictures, resurrection and reckoning	Knowledge and understandi	2	tenth

The class	**discussion**		**ng**		
Performance The class	**The lecture and discussion**	**Heaven and its descriptions**	**Knowledge and understanding**	**2**	**eleventh**
Performance The class	**The lecture and discussion**	**Fire and its descriptions**	**Knowledge and understanding**	**2**	**twelfth**
Performance The class	**The lecture and discussion**	**Review of the above**	**knowledge and understanding**	**2**	**thirteenth**
Performance The class	**The lecture and discussion**	**Review of the above**	**knowledge and understanding**	**2**	**fourteenth**
Monthly exam	**Monthly exam**	**exam**	**knowledge and understanding**	**2**	**fifteenth**

Course Evaluation .11

from 15/ Oral exam and daily First month exam from 15/ Second month exam preparation and attendance and participation from 10... We extract from it the effort score from 40

Final written exam of 60

.The final grade is 100

Learning and teaching resources .12

Required vocabulary	Required textbooks (methodology if (any
The Fundamentals of Islam / Rushdi Alian / Douri-Qahtaan Al	(Main References (Sources

Computer :Course name .1(word + powerpoint)

Course Description Form

:Course code .2

Semester/Year: Course System .3

:Date of preparation of this description .49/17/2024

person classroom lectures-Available forms of attendance: in .5

units 3 :(hours / Number of units (total 45 :(Number of study hours (total .6

(name is mentioned Name of the course supervisor (if more than one .7

:M.M. Firas Ali Abdullah Email firas.abdullah@tu.edu.iq

Course objectives .8

Understanding the components of the -1Microsoft Word interface, as well as .the PowerPoint interface, and how to navigate them

made designs or add images or -new slide and use ready Students can add a -2 .symbols to make the slide distinctive

Enable students to use the computer in daily tasks such as word processing, -3 .spreadsheets, browsing the Internet, and using Word

mat text documents including headings, Learn how to create and for -4 .paragraphs, inserting images, tables, charts, and entering data into cells

.Formatting is used to change the font, size, color, and paragraph formatting -5

1- lectures, Using different teaching methods, including solving, cooperative learning, and -discussion, problem .others	Strategy

Course Structure .10

Evaluation method	Learning method	Required learning outcomes	Name of the unit or topic	Watches	The week
Classroom performance	The lecture and discussion	Students knowledge to of how run programs	Run the program 1	3	the first

Classroom performance	The lecture and discussion	knowledge and understanding	Writing and deleting texts Text, copy and paste from one site to another , search for and replace text	3	the second
Classroom performance	The lecture and discussion	knowledge and understanding	format -Autocorrect, auto and exit the program	3	the third
Classroom performance	The lecture and discussion	knowledge and understanding	Formatting and simple character formatting, font change, text formatting, paragraph formatting and .style formatting	3	Fourth
Classroom performance	The lecture and discussion	knowledge and understanding	Organizing documents, using a spell checker, and using a grammar checker	3	Fifth
Classroom performance	The lecture and discussion	knowledge and understanding	Use automatic word concatenation in the margins (enter dates and (page numbers	3	Sixth
		knowledge and understanding	First month exam	3	Seventh
Classroom performance	The lecture and discussion	knowledge and understanding	navigation, Table, table table formatting	3	The eighth
Classroom performance	The lecture and discussion	knowledge and understanding	Run PowerPoint and create a new presentation	3	Ninth
Classroom performance	The lecture and discussion	knowledge and understanding	presentations using Create design templates, open a new blank presentation, and open an existing .calendar presentation	3	tenth
Classroom performance	The lecture and discussion	knowledge and understanding	Edit, organize, save and .print presentations	3	eleventh
Classroom	The lecture	knowledge and	Change the design of an entire presentation	3	twelfth

performance	and discussion	understanding			
Classroom performance	The lecture and discussion	knowledge and understanding	Edit and transfer texts and .artwork add	3	thirteenth
Classroom performance	The lecture and discussion	knowledge and understanding	Use speaker notes and exit the program	3	fourteenth
			Second month exam	3	fifteenth

Course Evaluation .11

The second .(the practical exam is (5 and (The first month exam is (1.0
Attendance, daily .(the practical exam is (5 and (month exam is (1.0
exam, participations and assignments are 10.... We extract from them
.the effort score from 40
Final written exam of 60
.The final grade is 100

Learning and teaching resources .12

Yatamzi, J.A. (2018). Computer and Programming Basics: A Textbook in Arabic. Lulu.com books Different from Internet SPSS 20 version Asttal, & Dr. Ibrahim Hamed. -Al The extent of availability of .(2018) computer skills in teaching mathematics among primary school teachers in UNRWA schools in the Gaza Strip from their point of view.	Required textbooks (methodology if any)
Computer and .(2018) .Yatamzi, J.A Programming Basics: A Textbook in Arabic. Lulu.com books Different from Internet SPSS 20 version Dr. Ibrahim Hamed. & ,Asttal-Al The extent of availability of 1(2018) computer skills in teaching mathematics among primary school teachers in UNRWA schools in the	(Main References (Sources

Gaza Strip from their point of view.	
Yatamzi, J.A. (2018). Computer and Programming Basics: A Textbook in Arabic. Lulu.com books Different from Internet SPSS 20 version **Dr. Ibrahim Hamed. & ,Asttal-Al The extent of availability of .(2018) computer skills in teaching mathematics among primary school teachers in UNRWA schools in the Gaza Strip from their point of view.**	Recommended supporting books and references (...journals, reports scientific)
	Electronic references, websites

Form Course Description

Course name .1
Basics of mathematics
Course code .2
Basics of mathematics
Semester/Year .3
Chapter One/First
Date this description was prepared .4
20/1/2025
Available forms of attendance .5
(In person (weekly
(Number of units (total / (Number of study hours (total .6
(Name of the course supervisor (if more than one name is mentioned .7
:Name: Ms. Haneen Adel Abdelrahman Emailhaneen19921006@gmail.com
Course objectives .8

• its types, ,Learn about the concept of the application service -application structures, in addition to the fixed and self .application • Recognizing and forming natural numbers • .about infinite sets and countable sets Learn • Learn about the binary operation and some examples of it, in concept of the mathematical system, the addition to the concept of the group, its conditions, and various examples of .it	Subject objectives
Teaching and learning strategies .9	
Fundamentals of Receive lectures on the subject of week In the .theoretical, for four hours ,Mathematics 2	Strategy

Course Structure .10

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	Watches	The week
,Daily monthly exams, homework	Paper lecture Display screen Blackboard	Applications	Introduction to the application or function	4	the first

	and pen				
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Types of applications	Types of applications	4	the second
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Examples	Examples of application types	4	the third
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Application installation	Application installation	4	Fourth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	service -Self and fixed applications	-Self application + comprehensive	4	Fifth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Basic settings	Basic settings	4	Sixth
Midterm exam					Seventh
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Natural numbers	Natural numbers	4	The eighth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	infinite sets	infinite sets	4	Ninth
Daily, monthly exams, homework	lecture Paper Display screen Blackboard and pen	Uncountable sets	uncountable sets	4	tenth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Binary operations	Binary operations 1	4	eleventh
Daily, monthly	Paper lecture Display	Sports system	Sports system	4	twelfth

exams, homework	**screen Blackboard and pen**				
Daily, monthly exams, homework	**Paper lecture Display screen Blackboard and pen**	**Group and its conditions with examples**	**Group and its conditions**	**4**	**thirteenth**
Second month exam					**fourteenth**
End of term exam					**fifteenth**

Course Evaluation .11	
:Students are evaluated during the semester according to the following criteria • First month exam of 15, second month exam of 15, daily exam and attendance and participation of 10 • Annual quest of 40 • Final exam of 60 • Final score out of 100	
Learning and teaching resources .12	
• Introduction to the foundations of mathematics, part two + the book of modern algebra	Required Textbooks
• Fundamentals of Mathematics by Dr. Hadi George, Dr. Riad Shaker Jabr, Dr. Nader Naoum	Main References
nothing	Electronic references, websites

Course Description Form

Course name: Matrices .1

:Course code .2

Semester/Year: Course System .3

Date of preparation of this .4description 9 :

20/1/2025

person classroom lectures-forms of attendance: in Available .5

units 3.5 :(hours / Number of units (total 56 :(Number of study hours (total .6

(Name of the course supervisor (if more than one name is mentioned .7

:Email M.M. Alaa Farhan Ahmed :Namealaa.f@tu.edu.iq

Course objectives .8

1 Learn about the system of linear equations .
27. **Learn about matrices and their types**
28. **.Learn how to perform operations on matrices**
29. **Methods for finding the inverse of a matrix**

12- including ,Using different teaching methods solving, cooperative -lectures, discussion, problem .learning, and others	Strategy

Course Structure .10

Evaluation method	Learning method	Required learning outcomes	Name of the unit or topic	Watches	The week
Daily exam	Explain and write the	Learn the basic concepts of	System of linear	4	February first week

	lecture in detail on .the board	scientific paragraph	equations		
Questions and answers	Explain and write the lecture in detail on .board the	Learn the basic concepts of scientific paragraph	Matrices	4	February second week
Exam on the board	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Matrix collection	4	February third week
Daily exam	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Subtracting matrices	4	February fourth week
Give home work questions and ask for answers	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	matrix multiplication	4	March first week
Daily exam	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Special arrays		March second week
	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Primary matrices	4	March third week
			First month exam	4	March fourth week
Give home work questions and ask for answers	Explain and write the lecture in detail on .board the	Learn the basic concepts of scientific paragraph	Inverse matrix	4	April first week
Student participation	Explain and write the lecture in detail on	Learn the basic concepts of scientific paragraph	Methods for finding the inverse of a matrix	4	April second week

on the board	.the board				
Give home work questions and ask for answers	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	How to delete chaos	4	April third week
Daily exam	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Determinants	4	April 4th week
Student participation on the board	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Properties of determinants	4	May first week
			Second month exam	4	May second week

Course Evaluation .11	
The first month exam is (15) The second month exam is (15) Attendance, daily exam, participation and assignments are 10... We 40 extract from them the effort score is Final written exam of 60 .The final grade is 100	
Learning and teaching resources .12	
Linear algebra Composition Yahya Abdul Saeed Dr. Nizar Hamdoun Shukr University of Mosul	Required textbooks (methodology if any)
	(Main References (Sources
1	Recommended supporting books and references (...scientific journals, reports)

	Electronic references, websites

Course Description Form

:Course name .1
integration
:Course code .2
:Semester/Year .3
Course system
:this description Date of preparation of .4
20/1/2025
:Available forms of attendance .5
person classroom lectures-In
:(Number of study hours (total .6
units 3.5 :(hours / Number of units (total 56
(Name of the course supervisor (if more than one name is mentioned .7
:Email M.M. Ahmed Taha Ahmed :Nameahmed.tabes@tu.edu.iq
Course objectives .8 **1 .Learn the basic concepts of integration and its types, definite and indefinite .** 30. **.they relate to continuity Learn how different functions integrate and how** 31. **Learn about the application of definite integration in various other sciences, .and how to benefit from it in solving problems in other sciences** 32. **There are many problems in applied sciences such as ordinary and partial .l equations, and to solve them we use integrals to reach a resultdifferentia**

13- Using different teaching methods, including solving, cooperative -lectures, discussion, problem .learning, and others	Strategy

Course Structure .10

Evaluation method	Learning method	Required learning outcomes	Name of the topic unit or	Watches	The week
Daily exam	Lecture and explanatio	Indefinite Integration Inverse Differentiation	Integration rules	4	First week

	n of the topic on the board	Derivative)) Knowing the Basic Theorem of Integration			
Questions and answers	Lecture and discussion	Integration of exponential and logarithmic functions and various examples	Integration of exponential and logarithmic functions	4	The second week
Daily exam	Explain and write the lecture	The student should memorize the laws of integration of trigonometric functions, solve questions, and master the integration rules for .angle integration	Integration of trigonometric functions	4	The third week
Student participation on the board	Explain and write the lecture in detail on .the board	The student should the law of memorize integration by .parts	fragmentation method	4	4 Week
Exam on the board	Explain the topic on the board	Learn the integration of trigonometric functions using trigonometric substitutions	Integration by substitution method	4	Week 5
			First month exam	4	Week 6
duty Questions and answers	Lecture and problem solving	To master the methods of analysis, how to distribute brackets, and unify .denominators	Integration with partial fractions	4	The seventh week
Student participation on the board	Explain and write the lecture in detail on .the board	To master the basic concepts that comprise the .subject	Integration methods (other (compensations	4	Week 8
Give homework questions and ask for answers	Explain and write the lecture in detail on .the board	Integration with a definite period of integration and substitution of the larger number minus the smaller number	definite integration	4	Week 9
Student participation on	Lecture and discussion	Equate the function to zero and use the analysis steps to	Area bounded by curve	4	The tenth week

the board		find the value of the .variable			
Give homework questions and ask for answers	Explain and write the lecture	To set the function equal to zero and use the analysis the steps to find value of the variable, then determine whether the values of the variable belong to .the function or not	Area bounded by a curve	4	Week eleven
Daily exam	Explain and write the lecture in detail on .the board	To equate functions a function and find from the two functions and solve the same steps for the area defined by the curve	Area bounded by two curves	4	twelfth week
			Second month exam	4	thirteenth week

Course Evaluation .11	
The second month exam is (15) (The first month exam is (15 Attendance, daily exam, participation and assignments are 10... We extract from them the effort score is 40 Final written exam of 60 .The final grade is 100	
Learning and teaching resources .12	
• I send" " Hisban differentiation And integration with Engineering Analytical" translation on Dear on and others University of Mosul The partial the first The second Edition Second 1983 • My patience Synonym The suffering ,And others" Hisban differentiation Integration, 1981, Baghdad. • My patience Synonym The suffering ,And others" Hisban differentiation And integration Advanced"1981, Baghdad.	Required textbooks (if any methodology)

• on Dear on And a slave The Provider on Haswan-Al And fair Zanbal Hussein" Mathematics High" Ministry Education. Higher And research Scientific, 1980 • on Dear on And a slave The Provider on Haswan-Al And fair Zanbal Hussein" Principles mathematics differentiation Integration" Ministry education High And research entificSci, 1986 • Ramadan Mohammed Jehima and Dr. Ahmed slave High Come on wind" differential and the " partial " integration the first The second. Edition Third 2001	(Main References (Sources
• Faleh Imran Dosari-Al" Differential " and the " partial " integration the first The second, 2007 • Nouri Happy Miyahi-Al" Introduction in Analysis Sports" " Printing ,Qadisiyah-Al Edition First 201	Recommended supporting books and references (...scientific journals, reports)
	Electronic references, websites

Form Course Description

:Course name .1
SPSS Computer
:Course code .2
stage fourth
:Semester/Year .3
Course system
:Date of preparation of this description .4
20/1/2025
: Available forms of attendance .5
person classroom lectures-In
:(Number of units (total / (Number of study hours (total .6
hours 36
(Name of the course supervisor (if more than one name is mentioned .7
:Name: M.M. Khairallah Faraj Subhan Emailkhairullah.f.sabhan@tu.edu.iq
objectives Course .8

• **windows in the Introducing the student to the most important SPSS program** • **the importance to Introducing the studentof SPSS** • **The most important features of the statementData view window** • **design a statistical Introducing the student to how to questionnaire** • **with applications on data arrangement, Provide the student variable transformation, data merging, data partitioning** • **Providing the student with applications on questionnaire analysis**	Subject objectives
Teaching and learning strategies .9	
Method / (Lectures (casting) Standard Use the method **Problems solution Method / Discussion**	Strategy

Course Structure .10

Evaluation meth	Learning method	Name of the unit or topic	Required learning outcomes	Watches	The week

od					
Class room perfo rman ce	Lecture, discussion, dialogue and interrogat on And enrichme nt	Data types, types of SPSS windows	knowledge and understandi ng	3	March first week
Perfo rman ce The class	Lecture, discussio n, dialogue and interroga tion	The most important features of theData view window data , entry	Knowledge and understandi ng	3	March month the The week second
Perfo rman ce The class	Lecture, discussion, dialogue and interrogat on And enrichme nt	Variable view sheet names and descriptions creating partial sums , of variables, designing statistical a questionnaire	Knowledge and understandi ng	3	March month the The week third
Perfo rman ce The class	,Lecture discussio n, dialogue and interroga tion	Data arrangement, variable conversion, data merging, data partitioning	Knowledge and understandi ng	3	March month The week Fourth
Perfo rman ce The class	Lecture, discussion, dialogue and interrogat on And enrichme nt	Collect data, select a part of data, weight data, add date to data	Knowledge and understandi ng	3	April first week
Perfo rman ce The class	Lecture, discussio n, dialogue and interroga	Data conversion, data counting, data encoding	Skill and value objectives	3	April month the The week second

	tion				
Perfo rman ce The class	**The lecture and discussio n**	**-auto ,Variable tab coding**	**Skill Goals And valuable**	**3**	**April month the The week third**
Perfo rman ce The class	**The lecture and discussio n**	**Rank cases and their types, estimation of missing values**	**Skill Goals And valuable**	**3**	**April month The week Fourth**
Perfo rman ce The class	**The lecture and discussio n**	**,Data exploration stem and leaf plot , boxplot**	**Skill Goals And valuable**	**3**	**May first week**
Perfo rman ce The class	**The lecture and discussio n**	**,Frequency chart Normal QQ Plot**	**Skill Goals And valuable**	**3**	**May month the The week second**
Perfo rman ce The class	**Lecture, discussion, dialogue and interrogat on And enrichme nt**	**DetrendedNormal QQ Plot Confidence , Intervals**	**Skill Goals And valuable**	**3**	**May month the The week third**
Perfo rman ce The class	**The lecture and discussio n**	**,Trimmed mean quartiles and percentiles**	**Skill Goals And valuable**	**3**	**May month The week Fourth**

Course Evaluation .11
First month exam from 15/ Second month exam from 15/ Oral exam and daily preparation and attendance and participation from 10... We extract from it the effort

score from 40 Final written exam of 60 .The final grade is 100	
resources Learning and teaching .12	
SPSS statistical program analysis Composition Dr. Ihab Abdel Salam Your guide to the statistical programSPSS . Composition Saad Zaghloul	Required textbooks (methodology (if any
SPSS statistical program analysis Composition Dr. Ihab Abdel Salam Your guide to the statistical programSPSS . Composition Saad Zaghloul	(Main References (Sources
SPSS statistical program analysis Composition Dr. Ihab Abdel Salam Your guide to the statistical programSPSS . Composition Saad Zaghloul	Recommended supporting books and references (scientific journals, (...reports
-Al the university Education college location university Education College / Mustansiriya Baghdad	Electronic references, websites

Course Description Form

Course name .1					
Educational Statistics					
Course code .2					
Educational Statistics / Second Stage					
Semester/Year .3					
quarterly					
Date this description was prepared .4					
20/1/2025					
Available forms of attendance .5					
My presence					
(total) Number of study hours (total) / Number of units .6					
30 hours, number of units (3) units					
(Name of the course supervisor (if more than one name is mentioned .7					
:Name: Abdullah Mohammed Ahmed Email**abdullah.moh@tu.edu.iq**					
Course objectives .8					
• The student learns the .... concepts in educational basic .statistics • Be able to solve problems .... of dispersion measures, central tendency, statistical methods and statistical .hypotheses • Evaluation methods such .... as written and oral tests and .assignments			Subject objectives		
strategies Teaching and learning .9					
Enable students to obtain the greatest possible amount of scientific knowledge .according to the approved curriculum			Strategy		
Course Structure .10					
Evaluation method	**Learning method**	**Name of the unit or topic**	**Required learning**	**Watches**	**The week**

			outcomes		
Oral homework	Presentation Participation Exercises Solution Discussion Method	Definition of statistics measurement variables sample statistical community		3	the first
Oral homework	Presentation Participation Exercises Solution Discussion Method	Shapes study The Statistics curve and Repetitive polygon and Repetitive The Columns and statement The Circle For statement Classified data not and Classified		3	the second
Oral homework	Presentation Participation Exercises Solution Discussion Method	Study of measures of central tendency for grouped data		3	the third
Oral homework	Presentation Participation Exercises Solution Discussion Method	of measures of central tendency for ungrouped data		3	Fourth
Oral homework	Presentation Participation Exercises Solution Discussion Method	Study of dispersion measures for 1 grouped data		3	Fifth

homework Oral	Presentation Participation Exercises Solution Discussion Method	Study of dispersion measures for ungrouped data		3	Sixth

Oral homework	Presentation Participation Exercises Solution Discussion Method	Study of dispersion measures for grouped and ungrouped data		3	Seventh
Oral homework Tests	Presentation Participation Exercises Solution Discussion Method	Types of research hypotheses in statistics and their formulation		3	The eighth
homework Oral Tests	Presentation Participation Exercises Solution Discussion Method	What do we mean by the level of significance and its ?formulation		3	Ninth

Oral homework	**Presentation Participation Exercises Solution Discussion Method**	**Decision making error and its types**		**3**	**tenth**

Course Evaluation .11	
assigned to the student, The grade is distributed out of 100 according to the tasks .such as daily preparation, daily, oral, monthly and written exams, reports, etc	
Learning and teaching resources .12	
Lectures from several sources	(Required textbooks (methodology if any
Statistics Dr. Ali Abu Saud-Al Principles of	(Main References (Sources
General Statistics Professor Dr. Ahmed Basyouni Principles of Probability and Statistics Dr . Mubarak, prisoner of Deeb	Recommended supporting books and (...references (scientific journals, reports

https://drive.google.com	sitesElectronic references, web

1. **Educational Psychology :** name Course
2. : code Course
3. **5 202- 4 Second semester 202 (Second grade)** Year /Chapter
4. **2** : description was prepared Date this
20/1/2025
5. **Class person / Online-In :** forms Available attendance
6. **hours / 3 units 45** : (Number of study hours (total) / Number of units (total
7. if more than one name is) Name of the course administrator (mentioned
:Email A -Al Saber Taha Yassin .Asst. Prof. Dr :Namesapr87@tu.edu.iq
8. objectives Course

Defining the concept of educational psychology and students' acquisition c organizational skills **Logical.** **Employing the ideas of educational psychology in practical applications i** **Preserving the human species** **nt educational Study of the most impor psychological processes and their relationship to the educational proces**	**Subject objectives** 1

Psychological	

9. Teaching and learning strategies	
Dialogue, discussion and problem solving	**Strategy**

10. Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	Watches	The week
and Questi answer And .homewor	**lecture a**	entry to the m basics of scienc Educational psychology	Get to know the introduction to Basics of Psychology Educational	3	the fi
Daily exa	**discussio**	Goals of Psychology /Educational Psychology Relationship Educational E other sciences	know the objectives of science Educational Psychology Relationship Educational Psycholog In other sciences	3	the secon
Question a answer And .homewor	**a lecture**	The importance educational psychology / Personal characteristics Desired teache	know the importance T science of Educational psychology/characterist Desired teacher personality In it	3	the thi
a questio Answer a And	**discussio**	The educationa process and science	learn about the process Educational and Psychological	3	Four

.homewor		Educational psychology	Educational		
Daily exar	a lecture	affecting Facto Effectiveness o the educational process	Identify the factors Influencing the effectiveness of the process Educational	3	fifth T
Question ar answer And .homewor	discussio	Know . Motivati .it Its functions. It .strategies	know the motivation T Its definition and functions and its strategies	3	The sixth
Daily exar	a lecture	Memory. Definition. .Importance Her study	learn about memory T Its definition and the importance of studying	3	The seven
Question ar answer And .homewor	discussio	contemporary a perspectives the In interpretation o memory	learn about the views T Contemporary interpretation of memo	3	The eight
Daily exar	a lecture	. mechanisms Factors affecting .S to improve wa it	learn about the To mechanisms of action Memory and Influencin Factors In it and ways to improv it	3	The ninth
Question ar answer And .homewor	discussio	. Forgetfulnes Definition. Caus His theories	know about forgetting T Its definition and cause And his theories	3	The tenth

Daily exar	**a lecture**	of Transfer learning effect. I .importance . Its Its .definiti .dimensions	know the transfer of T the effect Learning importance I and definition And its dimensions	3	single ten
Question ar answer And .homewor	**discussio**	of Theories transfer of .learning Feedback. .Definition Its dimensions	learn about theories T Transfer of learning an nutrition Apostasy, its definitior dimensions and	3	the secor ten
Daily exar	**a lecture**	of feedback Typ Learning. .Definition Conditions	Identify the types Feedback and learning Its definition and conditions	3	third t ten
Question ar answer And .homewor	**discussio**	Educational applications For learning theories	learn about To applications Educational learning theories	3	Fourt evil C
Daily exar	**midterm exam course**	course -mid A exam	exam course-Mid	3	fifth T evil C

11. Course Evaluation

marks represent the student's effort / 70 marks the final exam 30

12. Learning and teaching resources

nothing	(Required textbooks (methodology if any
educational related to Sources psychology	(Main References (Sources 1
Educational Psychology Book and	Recommended supporting books and references

all Approved Workbook that includ Subject vocabulary	(.scientific journals, reports, etc)
nothing	Electronic references, websites

Form Course Description

:Course name .1

Advanced Integration

:Course code .2

:Semester/Year .3

Course system

:Date of preparation of this description .4

20/1/2025

:Available forms of attendance .5

person classroom lectures-In

:(Number of study hours (total .6

units 3.5 :(hours / Number of units (total 56

(Name of the course supervisor (if more than one name is mentioned .7

:Email Ahmed Taha Ahmed .Name: M.Mahmed.tabes@tu.edu.iq

Course objectives .8

1 basic laws of integration Student knowledge of the laws of derivation and the .

33. **.Enhance students' understanding of basic integration concepts and related concepts**
34. **Teaching the student how to use advanced integration rules such as integration by parts and .integration of partial fractions**
35. **solving complex mathematical problems using integration, including Develop skills in .applications in engineering and physics**

14- Using different teaching methods, including solving, cooperative -lectures, discussion, problem .learning, and others	Strategy

Structure Course .10

Evaluation method	Learning method	Required learning outcomes	Name of the unit or topic	Watches	The week
Student	Lecture and	Learn the basic of concepts	Revisiting the topics of	4	February first week

partici pation on the board	explanation of the topic on the board	and integration laws their relationship to .differentiation rules	integration methods and definite integration		
Questi ons and answe rs	Lecture and ussiondisc	Learn the basic concepts of scientific paragraph	Integration of inverse functions	4	February second week
Exam on the board	Explain and write the lecture	Learn the basic concepts of scientific paragraph	Some theorems used for double integrals	4	February third week
Daily exam	Explain and write the lecture in detail on .the board	the basic Learn concepts of scientific paragraph	Applications of double integrals	4	February fourth week
Give home work questi ons and sk for answe rs	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Diske's Single Integrals	4	March first week
			First month exam		March second week
	Explain and write the lecture	Learn the basic concepts of scientific paragraph	Finding volumes using single integrals Washer	4	March third week
Stude nt partici pation on the board	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Finding volumes using single integrals Shell	4	March fourth week
Give home work questi ons and sk for answe rs	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Finding length using integration	4	April first week
Stude nt partici pation	Lecture and discussion	Learn the basic concepts of scientific paragraph	Find the surface area	4	April second week

on the board					
Give home work questions and ask fo answers	Explain and write the lecture	Learn the basic concepts of scientific paragraph	Solving general exercises and specific curriculum exercises in length and surface area	4	April third week
Daily exam	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Double integrals in polar coordinates	4	April 4th week
Student partici pation on the board	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Concept and integration of dual functions f(x,y)	4	May first week
			Second month exam	4	May second week

Course Evaluation .11	
(15) The first month exam is (15) The second month exam is Attendance, daily exam, participation and assignments are 10... We extract from them the effort score is 40 Final written exam of 60 .The final grade is 100	
Learning and teaching resources .12	
1. Bivins, I. C., & Davis, S. ,.Anton, H .Calculus. John Wiley & Sons .(2021)	Required textbooks (methodology if any)
15. **Fouad Hamza Abdel Sharifi. Who developed the .(2016) differential and integral ?calculus** 16. **Strang, G. (1991). Calculus (Vol. 1). SIAM**	(Main References (Sources
Anton, H., Bivens, I. C., & Davis, S. (2021). Calculus. John Wiley & Sons .	Recommended supporting books and references

	(...scientific journals, reports)
	Electronic references, websites

Course Description Form

Course name .1	
Engineering	
Course code .2	
Engineering	
Semester/Year .3	
Chapter Two/Second	
Date this description was prepared .4	
20/1/2025	
Available forms of attendance .5	
(In person (weekly	
(Number of study hours (total) / Number of units (total .6	
(supervisor (if more than one name is mentioned Name of the course .7	
:Name: Ms. Haneen Adel Abdelrahman Emailhaneen19921006@gmail.com	
Course objectives .8	
• system The The obvious , system Younck And Fano , Properties order The obvious • Engineering concept For the Euclid , hypothesis Parallelism , some Attempts Proof hypothesis Parallelism . • attempt Ptolemy, proof age Tents, proof victory Religion Tusi-Al, an attempt Proclus, proof Etheraldeen Aortic, proof And las, the system The hilberry tariff , And its components. • emergence Engineering Euclidean-Non) Engineering -Al Hadhluliyah Engineering Elliptical (• comparison between (Geometry (Euclidean -And non (Euclidean.	Subject objectives
Teaching and learning strategies .9	
differentiate between axioms, In it, the student learns how to .the importance of their existence, and how to use axioms Theorems in proof and then distinguish between Euclidean and .Euclidean axiomatic systems. Lectures are given-non .Engineering in 3 hours of theory every week	Strategy
se StructureCour .10	

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	Watches	The week
Daily, monthly ,exams homework	Paper lecture Display screen Blackboard and pen	Euclidean geometry	The emergence of Euclidean geometry	3	the first
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	The axiomatic system	Axiomatic system, .projective level	3	the second
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	The axiomatic system	Harmony level	3	the third
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Uniq system	Uniq system	3	Fourth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Fano system	Fano system	3	Fifth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	consistency	Properties of axiomatic system, consistency property	3	Sixth
exam First month					Seventh
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Independence property	Independence property 1	3	The eighth
Daily, monthly	Paper lecture	Euclidean geometry	Geometry of Euclid's	3	Ninth

exams, homework	Display screen Blackboard and pen		concept, parallelism hypothesis, some attempts to prove the parallelism .hypothesis		
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Some attempts to prove the fifth axiom	Ptolemy's attempt, Omar Khayyam's -proof, Nasr al Tusi's -Din al proof, Proclus' attempt, Athir -Din al -al Abhari's proof, Wallace's proof	3	tenth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	The Helbry system	The Halberd system, its definition and .components	3	eleventh
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	-Non Euclidean geometry	The emergence -of non Euclidean geometry elliptic) .(geometry	3	twelfth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Comparison of engineering	Comparison between Euclidean and Euclidean -non geometries. And drawing .functions	3	thirteenth
Second month exam					fourteenth
End of term exam					fifteenth

Course Evaluation .11

:Students are evaluated during the semester according to the following criteria

- exam of 15, second month exam of 15, daily exam and attendance and First month participation of 10
- Annual quest of 40
- Final exam of 60
- Final score out of 100

Learning and teaching resources .12

• Mukhtar "Basic Concepts in -Amal Shihab Al First Edition, University of "Engineering 1992 Iraq-Baghdad D • Sarraj, “Axioms and -Abdul Wahab Ahmed Al Geometry Systems”, First Edition, University 1985 ,Din, Iraq-of Salah Al	Required Textbooks
• Mohammed Ibrahim Rashid and Abdullah Zoubi "Principles of Modern-Hamoud Al First "Euclidean Geometry-Euclidean and Non edition, Amman Publishing and Distribution .Amman -House • Mayahy and others, “Axioms, -Nouri Farhan Al -Euclidean Systems”, Al-Geometry and Non . Qadisiyah University, 2006	Main References
• Adler. C. F. Mc Grow-Hill Book Company "Modern Geometry", 1967 • Bonola R. Non-Euclidean" 1955 " • Coxeter. HSM"Introduction to Geometry 1961 "	Recommended supporting books ncesand refere
nothing	Electronic references, websites

Course Description Form

:Course name .1	
evaluation Measurement and	
:Course code .2	
Stage 3	
:Semester/Year .3	
Course system	
:Date of preparation of this description .4	
21/1/2025	
: Available forms of attendance .5	
person classroom lectures-In	
:(Number of study hours (total) / Number of units (total .6	
hours 24	
(Name of the course supervisor (if more than one name is mentioned .7	
:Name: M.M. Khairallah Faraj Subhan Emailkhairullah.f.sabhan@tu.edu.iq	
Course objectives .8	
1- Introducing students to the importance of measurement and evaluation in education 2- Informing students about the various types of tests that .students need 3- Emphasizing the foundations and mechanisms of mathematics psychological tests for students in general and department students in particular	Subject objectives
Teaching and learning strategies .9	
Method / (Lectures (casting) Standard Use the method **Problems solution Method / Discussion**	Strategy

Course Structure .10

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	Watches	The week
Class	Lecture	The concept of	knowledge	2	March first

room performance	and discussion	measurement and evaluation in education	and understanding		week
Performance The class	The lecture and discussion	Achievement tests and their types in education	Knowledge and understanding	2	March month the The week second
Performance The class	The lecture and discussion	Performance tests and their types and essay tests and their types in education	Knowledge and understanding	2	March month the The week third
Performance The class	The lecture and discussion	Specifications table and its importance in preparing educational tests for students and models of those tables to familiarize students with them	Knowledge and understanding	2	March month The week Fourth
Performance The class	The lecture and discussion	The psychometric properties of all types of tests are represented by the .difficulty factor	Knowledge and understanding	2	April first week
Performance The class	The lecture and discussion	The primary and secondary characteristics of a good abstract achievement test and its important features	Skill and value objectives	2	April month the The week second
Performance	The lecture and	Consistency in tests and their various calculation	Skill Goals And valuable	2	April month the The week third

The class	**discussion**	**mechanisms**			
Performance The class	**The lecture and discussion**	**Benefits of Psychological Tests and Measurements for Students**	**Skill Goals And valuable**	**2**	**April month The week Fourth**
Performance The class	**The lecture and discussion**	**Understanding thinking, its importance, its types in mathematics, and the most important tests indicating the types of thinking in mathematics**	**Skill Goals And valuable**	**2**	**May first week**
Performance The class	**The lecture and discussion**	**Test situation steps Achievement**	**Skill Goals And valuable**	**2**	**May month the The week second**
Performance The class	**The lecture and discussion**	**table numbers And Specifications map the Experimental**	**Skill Goals And valuable**	**2**	**May month the The week third**
Performance The class	**The lecture and discussion**	**Test characteristics Good**	**Skill Goals And valuable**	**2**	**May month The week Fourth**

Course Evaluation .11
month exam from 15/ Oral exam and daily First month exam from 15/ Second preparation and attendance and participation1from 10... We extract from it the effort score from 40

Final written exam of 60 .The final grade is 100	
Learning and teaching resources .12	
shine For the professor Academic Collection -1 AD 2011 The Majestic Mustafa . Psychological And measurement Calendar .2 AD 1999 . The Stranger Symbolism 1999 Ajili-Al Dr. Sabah Achievement Tests .3 . AD	methodology) Required textbooks (if any
. Psychological And measurement Calendar .1 AD 1999 . The Stranger Symbolism Struggle . And the measurement Calendar .2 AD 2012 . Azzawi-Al	(Main References (Sources
For Academic Collection At level Prediction .1 AD 1987 Qadir-Al slave Mohammed the doctor . .Noble . Achievement Motivation .2 . AD 1993 . Stallion Mohammed Academic Collection between Relationship .3 slave For Nadia Character Features And some . AD 1997 Peace	Recommended supporting books and references (scientific journals, (...reports
-Al the university Education college location university Education College / Mustansiriya Baghdad	websites ,Electronic references

Course Description Form

Course name .1
Curriculum material and textbook analysis

Course code .2
Curricula and textbook analysis / third stage
Semester/Year .3
quarterly
Date this description was prepared .4
21/1/2025
Available forms of attendance .5
My presence
(Number of study hours (total) / Number of units (total .6
20 (hours, number of units (2
(more than one name is mentioned Name of the course supervisor (if .7
:Name: Abdullah Mohammed Ahmed Email**abdullah.moh@tu.edu.iq**
Course objectives .8

• Learn about the curriculum . material and methods of ...analyzing the school book • Students learn the advantages .. disadvantages of different and .approaches • Students learn the concept and ...importance of the textbook	Subject objectives
Teaching and learning strategies .9	
Gaining knowledge and information from studying the curriculum as it is an prepare important educational subject to .students in their field of specialization	Strategy

Course Structure .10

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	Watches	The week
Classroom performance	Method of delivery and discussion	The concept of the method, explanation of the	1	2	the first

		traditional method and the modern method			

Classroom performance	Method of delivery and discussion	Explaining general and specific educational objectives	2	the second
Classroom performance	Discussion method and	Explanation of the curriculum of separate and connected subjects and the curriculum of broad fields	2	the third
Classroom performance	Discussion method and	Explanation of the activity method and the axial method	2	Fourth
a test	Discussion method and	Explain the importance of the school book	2	Fifth

Classroom performance	**Method of delivery and discussion**	**Principles and methods of curriculum development**	**2**	**Sixth**
Classroom performance	**Method of delivery and discussion**	**Justifications for curriculum development**	**2**	**Seventh**
Classroom performance **Classroom performance**	**Method of delivery and discussion** **Method of delivery and discussion**	**Curriculum development steps** **Curriculum development theories**	**2**	**The eighth**
Classroom performance	**Method of delivery and discussion**	**Textbook Specifications**	**2**	**tenth**

Course Evaluation .11	
The grade is distributed out of 100 according to the tasks assigned to the student, .monthly and written exams, reports, etc ,such as daily preparation, daily, oral	
Learning and teaching resources .12	
Basic Education Assistant Professor	(Required textbooks (methodology if any

Dr. Karim Nasser Ali	
Basic education between theory and practice Muhammad Hassan Hassan	(Main References (Sources
Basic Education Analytical Study Dr. Diab Ismail	Recommended supporting books and (...references (scientific journals, reports
	Electronic references, websites

Course Description Form

Course name: Algebra of rings .1
:code Course .2
Course System :Semester/Year .3
Date this description was prepared 4
21/1/2025
immanence Safiya Lectures : Available forms of attendance .5
Number of study hours (total): 42 hours / Number of units (total): 3 units .6
(course supervisor (if more than one name is mentioned Name of the .7
:Name: M.M. Ahmed Taha Ahmed Emailahm.taha10@gmali.com

Course objectives .8	
The course aims to provide students with the basic theoretical -1 through which they can understand aspect on which they depend and .the practical aspect Giving a definition of the cycle and informing the student about the -2 meaning of the cycle, its properties, uses, applications in daily life, .and the use of its theories in society udent able to distinguish between the partial set and Making the st -3 .the partial ring and between the ideals and the universal ring The ability to employ different theorems to study the types and -4 .properties of the loop skills required to The curriculum and its contents achieve the -5 .learning in the student-develop scientific thinking and self	Subject objectives
Teaching and learning strategies .9	
1- Using different teaching methods, including lectures and , Problems solution And the way Discussion .tutorials .learning, etc cooperative	Strategy

Course Structure .10

Evaluation method	Learning method	Required learning outcomes	Name of the unit or topic	Watches	The week
Daily .exam	Lecture and explanation of the on topic the board	of the Definition ring and its .operation	The episode	3	February first week
Questions and . answers	The and lecture discussion	Knowing the properties of the .ring with proof	Ring properties	3	month February second week
Exam on the board	Explain and write the lecture	Knowing the zero divisors and the numerical area and their relationship in with the the circle . steps to solve them	Zero Factors and Numerical Area	3	month February third week
The exam .is daily	Explain and write the lecture in detail on .the board	Knowledge of the field and some ems that relate theor the field to the numerical area and .zero divisors	Field and some theorems	3	month February fourth week
Give homework questions and ask for .answers	Explain and write the lecture tail on in de .the board	Knowing the partial ring with some .examples	Partial episode	3	March first week
The exam .is daily	The and lecture discussion	The central ring with some theorems that relate to the partial ring.	Center ring	3	second March week
First month exam				3	third March week
Students share on the .board	Lecture and problem solving	Knowledge of ideals and their laws 1	Ideals	3	fourth March week
Give homewor	Explain the lecture	Types of ideals prime ideal,)	Types of ideals	3	April first week

k questions and ask for .answers	**in detail on .the board**	**isopotent, powerless, maximal ideals, minima ideals) with examples illustrative**			
Students share on the .board	**Explain the lecture in detail on .the board**	**Theorems about types of ideals**	**Theorems**	**3**	**April month the week second**
Give homework questions and ask for .answers	**The and lecture discussion**	**Division ring with some examples**	**Division ring**	**3**	**April month the third week**
Daily .exam	**Lecture and problem solving**	**Theorems of the division theorem and its relation to ideals types of**	**Division Theorem Theorems**	**3**	**April month Fourth week**
Students share on the .board	**Explain the lecture in detail on .the board**	**The semicircular ring with some theorems**	**Radial ring with some theorems**	**3**	**May month the first week**
month exam Second				**3**	**May month the week second**

Course Evaluation .11	
The first month exam is (15) The second month exam is (15) Attendance, daily exam, participation and assignments are 10... We extract from them the effort score is 40 Final written exam of 60 .The final grade is 100	
Learning and teaching resources .12	
Rings -1, rings and linear algebra. B. Hartley, T. Hawkes Introduction to the theory of rings and fields. .2 1420 Mukarramah-Dosari, Makkah Al-Faleh Al 1	Required textbooks (methodology (if any

. AH Algebra ll Ring theorm, Carl Faith, Springer-Verlary, Berlin 1978	
Group Theory, Dr. Safwan Awira, Prof. .1 Mutanabbi -Baqi, Al-Muhammad Abdul . AH 1428 ,Library Introduction to Group Theory, Basil Atta -2 Abdul Majeed and others, 1982, Ministry of -Education and Scientific Research Higher .Iraq	(Main References (Sources
Ring Theory by Dr. Adel Ghassan Naoum, Dr. Hashemi-Basil Al	Recommended supporting books and references (scientific journals, (...reports
Modues and Rings by F. Kasch	Electronic references, websites

Description Form Course

Specialized Teaching Methods, Third Year :Course name .1
:Course code .2
Semester/Year: Course System .3
Date this description was prepared
2025/1/20
person classroom lectures-Available forms of attendance: in .5
units 3 :(Number of units (total / 45 :(Number of study hours (total .6
(Name of the course supervisor (if more than one name is mentioned .7
:Email Asst. Prof. Dr. Loay Musa Rawi :Name**loaytaref@tu.edu.iq**
Course objectives .8 **Recognition on Vocabulary Ways teaching Specialized** **1- identification mathematics As a science ?What arts do you share with it And art** **2- Goals teaching mathematics** **3- Calendar And its means The purpose Goals sources** **4- Goals Bloom , table Specifications** **5- Methods teaching mathematics**

15- Using different teaching methods, including solving, cooperative -lectures, discussion, problem .learning, and others	Strategy

Course Structure .10

Evaluation method	Learning method	Required learning outcomes	Name of the unit or topic	Watches	The week
Classroo	The lecture	Mathematic	identification	3	the first

n performance	and discussion	s teaching methods	Mathematics, as a science And art		
Classroom performance	lecture The and discussion	Mathematics teaching methods	mathematics shroud ?What is it Arts that Share With her	3	the second
Classroom performance	The lecture and discussion	Mathematics teaching methods	Goals teaching mathematics	3	the third
Classroom performance	The lecture and discussion	Mathematics teaching methods	Calendar And its means	3	Fourth
Classroom performance	The lecture and discussion	Mathematics teaching methods	sources Goals	3	Fifth
Classroom performance	The lecture and discussion	Mathematics teaching methods	Goals Bloom	3	Sixth
Classroom performance	The lecture and discussion	Mathematics teaching methods	table Specifications	3	Seventh
Classroom performance	The lecture and discussion	Mathematics teaching methods	Methods teaching mathematics	3	The eighth
Classroom performance	lecture The and discussion	Mathematics teaching methods	exam daily	3	Ninth
Classroom performance	The lecture and discussion	Mathematics teaching methods	road Discovery	3	tenth
Classroom performance	The lecture and discussion	Mathematics teaching methods	steps solution The problem	3	atheistic ten
Classroom performance	The lecture and discussion	Mathematics teaching methods	exam quarterly	3	twelfth
Classroom performance	The lecture and discussion	Mathematics teaching methods	road Games Educational	3	the third ten
Classroom	The lecture and	Mathematics teaching	steps The method	3	Fourth ten

performance	discussion	methods			
Classroom performance	The lecture and discussion	Mathematics teaching methods	**Advantages road Games Educational For the teacher And the student**	3	**Fifth ten**

Course Evaluation .11	
The first month exam is (15) The second month exam is (15) Attendance, daily exam, participation and assignments are 10... We extract from them the effort score is 40 Final written exam of 60 .The final grade is 100	
teaching resources Learning and .12	
nothing	Required textbooks (methodology if any)
.Methods teaching Mathematics, Fathi Khalil Hamdan - university Petra. Written by: Magdy Dear Ibrahim - world Books For publication - Cairo - 2005	(Main References (Sources

Course Description Form

Mathematical Analysis :Course name .1
:Course code .2
Semester/Year: Course System .3
Date this description was prepared
2025/1/20
person classroom lectures-Available forms of attendance: in .5
units 3.5 :(hours / Number of units (total 56 :(Number of study hours (total .6
(Name of the course supervisor (if more than one name is mentioned .7
:Email Ayad Hamad Khalaf .Name: Drdrayadlohebe@tu.edu.iq
Course objectives .8 **student to the basics of mathematical analysis, Introducing the :including** **1- Real numbers, their description, properties and definition of the field of real numbers** **2- Ordering axioms** **3- The property of perfection and tragedy and the concept of goals and ends** **4- regular continuity Continuity and** **5- Regular convergences and convergences** **6- Riemann integration theorem** **7- Lebecq's Theorem of Integration**
Teaching and learning strategies .9

16- Using different teaching methods, including solving, cooperative -problem ,lectures, discussion .learning, and others	Strategy

Course Structure .10					
Evaluation metho	**Learning method**	**Required learning outcomes**	**Name of the unit or topic**	**Watches**	**The week**

d					
Daily exam	**Lecture and explanation of the topic on the board**	**Learn the basic concepts of scientific paragraph**	**Real numbers, their description, properties and definition of the field of real numbers**	**4**	**February first week**
Questions and answers	**Lecture and discussion**	**Learn the basic concepts of scientific paragraph**	**Ordering axioms**	**4**	**February second week**
Exam on the board	**Explain and write the lecture**	**Learn the basic concepts of scientific paragraph**	**Perfection and Tragic Property**	**4**	**February third week**
Daily exam	**Explain and write the lecture in detail on .the board**	**basic Learn the concepts of scientific paragraph**	**The concept of goals and ends**	**4**	**February fourth week**
Give home work questions and ask for answers	**Explain and write the lecture in detail on .the board**	**Learn the basic concepts of scientific paragraph**	**Continuity**	**4**	**March first week**
Daily exam	**Lecture and discussion**	**Learn the basic concepts of scientific paragraph**	**and regular continuity**		**March second week**
	Explain and write the lecture	**Learn the basic concepts of scientific paragraph**	**First month exam**	**4**	**March third week**
Student participation on the board	**Explain and write the lecture in detail on .the board**	**Learn the basic concepts of scientific paragraph**	**Convergences**	**4**	**March fourth week**
Give home work questi	**Explain and write the lecture in detail on**	**Learn the basic concepts of scientific paragraph**	**Regular convergences**	**4**	**April first week**

ons and ask for answers	.the board				
Student participation on the board	Lecture and discussion	Learn the basic concepts of scientific paragraph	Riemann integration theorem	4	April second week
Give home work questions and ask for answers	Explain and write the lecture	Learn the basic concepts of scientific paragraph	Riemann Theorem Exercises	4	April third week
Daily exam	Explain and write the lecture in detail on .the board	Learn the basic concepts of scientific paragraph	Lebecq's Theorem of Integration	4	April 4th week
Student participation on the board	Explain and write the lecture in detail on .board the	Learn the basic concepts of scientific paragraph	Liebeck theory exercises	4	May first week
			Second month exam	4	May second week

Course Evaluation .11	
The first month exam is (15) The second month exam is (15) Attendance, daily exam, participation and assignments are 10... We effort score is 40 extract from them the Final written exam of 60 .The final grade is 100	
Learning and teaching resources .12	
Adel Ghassan Naoum, "Introduction to Mathematical Analysis", University of 1986 -Iraq - Baghdad	Required textbooks (methodology if any)

-Apostol, " Mathematical Analysis **", 2nd 1974** **- Edwin Hewitt Karl Stromberg, "** Real and Abstract Analysis **", 1978**	(References (Sources Main
-Scott , D.B., and Tims, S.R., " Mathematical Analysis An Introduction", **1966.**	Recommended supporting books and references (...scientific journals, reports)
	Electronic references, websites

Course Description Form

Theory of Statement :Course name .1
:Course code .2
Semester/Year: Course System .3
Date this description was prepared
21/1/2025
person classroom lectures-Available forms of attendance: in .5
units 3.5 :(hours / Number of units (total 56 :(Number of study hours (total .6
(Name of the course supervisor (if more than one name is mentioned .7
Diaa Nazim Ahmed .Name: M.M Dheyaa.alangood@tu.edu.iq
Course objectives .8 **Introducing the student to the basics of the theory of graphs**
Teaching and learning strategies .9

17- Using different teaching methods, including solving, cooperative -problem ,lectures, discussion .learning, and others	Strategy

Diaa Nazim Ahmed	**the The name of desi**
Dheyaa.alangood@tu.edu.org	**mail-e**

Master of Science in Mathematics				Academic qualification
Final	**Annual Quest**	**Chapter Two**	**Chapter One**	**Ratings** **Division of grades) (**
%60	**%40**	**%20**	**%20**	
Number of hours = 3 +3 **3 = Number of units** **(Mathematics Department (morning + evening**				**:General notes** **Number of hours,) number of units, , lecture locations (.etc**

Notes	Practical material	Theoretical material	date the	The week
		Definition of statement, directed statement and homology	2024/2/20	**the first**
		Data operations	2024/2/27	**the second**
		Some private data	24 20/3/5	**the third**
		binary statement segmentation	4 202/3/12	**Fourth**
		circuits Paths and	4 202/3/19	**Fifth**
		eccentricity and distance	4 202/3/26	**Sixth**
		Categorical groups	24 20/4/2	**Seventh**
		Adjacency matrices	24 20/4/9	**The eighth**
		Matrices and incidence	4 202/4/16	**Ninth**
		Eid holiday	2024/23/4	**tenth**
		Trees	2024/30/4	**eleventh**
		course exam-Mid 2	2024/5/7	**twelfth**
		Eulerian data	4 202/5/14	**thirteenth**
		Hamiltonian data	4 202/5/21	**fourteenth**
		Results and proofs	4 202/5/27	**fifteenth**

Course Description Form

Course name .1	
development Sustainable	
Course code .2	
Sustainable development	
Semester/Year .3	
Chapter One/Second	
Date this description was prepared .4	
21/1/2025	
Available forms of attendance .5	
(In person (weekly	
(Number of study hours (total) / Number of units (total .6	
(Name of the course supervisor (if more than one name is mentioned .7	
:Name: M.M. Elaf Rabie Ahmed Rashid Emailelaf.ahmed@tu.edu.iq	
Course objectives .8	
• Understand the concept of sustainable development and its importance • about the history of sustainable development and Learn articles • Recognizing the role of family, individual and society in sustainable development	Subject objectives
Teaching and learning strategies .9	
are both theoretical sustainable development The lectures on . two hours and practical, and are given at the same time for The week	Strategy

Course Structure .10

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	Watches	The week
Daily, monthly exams, homework	**Paper lecture Display screen Blackboard and pen**	**Definition**	**sustainable development** 2	**2**	**the first**

Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Its authors	Historical development of sustainable development	2	the second
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Economic, social and environmental	Sustainable development areas	2	the third
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Agriculture Desertification' ' Water Resources	Aspects that the family deals with	2	Fourth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Methods and dialogues	The role of law in implementing sustainable development	2	Fifth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Its role includes construction, agriculture and .renovation	The role of the individual in sustainable development	2	Sixth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Guidance, n and educatio awareness	The role of the family in sustainable development	2	Seventh
First month exam					The eighth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen	Continuous, fair and balanced	Characteristics of sustainable development	2	Ninth
Daily, monthly exams, homework	Paper lecture Display screen Blackboard and pen		Sustainable Development Goals	2	tenth

Daily, monthly exams, homework	**Paper lecture Display screen Blackboard and pen**		**Iraq Sustainable Development Agenda 2030**	**2**	**eleventh**
Daily, monthly exams, homework	**Paper lecture Display screen Blackboard and pen**		**The role of discussions and conferences in developing sustainable development**	**2**	**twelfth**
Daily, monthly exams, homework	**Paper lecture Display screen Blackboard and pen**		**Prospects for support required to implement sustainable development**	**2**	**thirteenth**
Second month exam					**fourteenth**
End of term exam					**fifteenth**

Course Evaluation .11	
:the following criteria Students are evaluated during the semester according to • First month exam of 15, second month exam of 15, daily exam and attendance and participation of 10 • Annual quest of 40 • Final exam of 60 • Final score out of 100	
Learning and teaching resources .12	
• nothing	Required Textbooks
• nothing	References Main
Sustainable Development Book: Between -Theory and Practice... Written by Dr. Ezz El Nour Aboah 2019-Din Adam El	Recommended supporting books and references
nothing	Electronic references, websites