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

Academic Program and Course

٥٢٠٢

The introduction

The educational program is a coordinated and organized package of courses that include procedures and experiences organized into study modules. The primary purpose of the program is to build and refine the skills of graduates, making them qualified to meet the requirements of the labor market. It is reviewed and evaluated annually through internal or external audit procedures and programs, such as the External Examiner Program.

The academic program description provides a brief summary of the program's main features and courses, indicating the skills students are expected to acquire based on the program's objectives. The importance of this description is evident in that it represents the cornerstone for obtaining program accreditation. It is written by faculty members under the supervision of the academic committees in the academic departments.

This guide, in its second edition, includes a description of the academic program after updating the vocabulary and paragraphs of the previous guide in light of the new developments and changes in the educational system in Iraq, which included a description of the academic program in its traditional form (annual, semester) in addition to adopting the description of the academic program circulated pursuant to the letter of the Department of Studies TM٣/٢٩٠٦ dated ٥/٣/٢٠٢٣ with regard to programs that adopt the Bologna process as the basis for their work.

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

Concepts and terms:

Academic Program Description: The academic program description provides a concise summary of the program's vision, mission, and objectives, including a detailed description of the targeted learning outcomes based on specific learning strategies.

Course Description: Provides a concise summary of the course's key features and the learning outcomes expected of the student, demonstrating whether the student has

made the most of the available learning opportunities. It is derived from the program description.

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

Program mission: It briefly explains the objectives and activities required to achieve them, and also identifies the program's development paths and directions.

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

Curriculum structure: All courses/subjects included in the academic program according to the approved learning system (semester, annual , courses , Bologna track) whether required by (ministry, university, college, or scientific department) with the number of academic units.

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

Teaching and learning strategies : These are the strategies used by faculty members to develop student teaching and learning. They are plans followed to achieve learning objectives. They describe all classroom and extracurricular activities to achieve the program's learning outcomes.

Academic Program Description Form

University Name: Northern Technical University

College/ Polytechnic Al-Hawija

Academic Department: Department of Evidence Techniques

Name of academic or professional program: Diploma in Forensic Evidence Techniques

Final Certificate Name: Technical Diploma

Academic system: Courses

Description preparation date: ٧/٩/٢٠٢٥

file: **٧/٩/٢٠٢٥ out the of filling**

Signature:

Name of Academic Assistant: **Dr**. **Muhammad Ali Faris**

Date: **September 7**, **2025**

Signature:

Head of Department: **Attia Suleiman Khalifa**

Date: **September 7**,**2025**

Check the file before

Quality Assurance and University Performance Division

Name of the Director of the Quality Assurance and University Performance Division: **Ahmed Abdel Khalaf**

Date: ٧/٩/٢٠٢٥

:the signature

Approval of the Dean of the Technical Institute

Prof. **Dr**. **Omar Khalil Ahmed**

Program vision -١

It aims to prepare distinguished graduates in the field of forensic evidence, capable of employing modern technology and scientific analysis methods to solve crimes . and contribute to achieving justice

Program message -٢

Providing specialized education in forensic science using the latest technologies, to prepare qualified personnel who can contribute to the detection of crimes and support criminal justice with scientific and . technical expertise

Program objectives -٣

- Qualifying graduates with the technical and scientific skills to analyze forensic evidence.
- Promoting the use of advanced technology in criminal investigations.
- Developing students' research capabilities in the field of forensic evidence.
- Supporting criminal justice by providing qualified professional cadres.
- Cooperating with security and judicial authorities to enhance community safety.

Programmatic accreditation -٤

nothing

Other external influences -٥

nothing

Program structure-٦

Program structure	Number of courses	Study unit	percentage	Notes
Institutional requirements	١٠	٢٠	%١٥	There is one elective .course
Institute requirements	٦	٢٨	%٢١	There are two elective .courses
Department requirements	١٨	٨٦	%٦٤	There are two elective .courses

Summer training	There is			essential
Other				

First academic level / first program

T	Course name in Arabic	Course name in English	Number of hours			The symbol	Type of requirements
			N	A	M		
1	Life Sciences	Biology	2	٣	٥	TIHA100	The section is mandatory
2	General Penal Code	General Penal Code	1	2	3	TIHA102	The section is mandatory
3	Device technologies	Equipment technology	٢	٣	٥	FRSC103	The section is mandatory
4	Principles of Psychology	Principles of Psychology	٢	2	٤	FRSC100	The section is mandatory
5	Criminology	Criminology	2	١	٣	FRSC100	The section is mandatory
6	forensic photography	Criminal Photography	1	٣	٤	FRSC102	The section is mandatory
7	Computer Principles	Computer Principles	1	١	٢	NTU 102	University compulsory
8	Medical terms	Medical Terminology	2	- -	2	TIH 109	Ijbar Institute
9	Human rights and democracy	Human Rights and Democracy	2	- -	2	NTU 100	University compulsory
10							
	the total		١٥	١٥	٣٠		

:First academic level / Second program

T	Course name in Arabic	Course name in English	Number of hours			The symbol	Type of requirements
			N	A	M		
1	chemistry	Chemistry	2	3	5	TIHA101	The institute is mandatory
2	criminal investigation	Criminal investigation	٢	٣	٥	FRSC104	The section is mandatory
3	crime scene	Crime Scene	٢	٣	٥	FRSC106	The section is mandatory
4	First aid	First Aid	١	٢	٣	FRSC105	Section Selection
5	Forensic Sciences	Sciences Criminal Evidence	٢	٣	٥	FRSC107	The section is mandatory
٦	Arabic	Arabic Language	2	- -	2	NTU 104	University compulsory
٧	Sports	Physical Education	1	1	2	NTU 105	University choice

٨	English language	English Language	2	- -	2	NTU 101	University compulsory
	the total		١٤	١٥	29		

:Total theoretical hours for the two programs٢٩
:Total practical hours for the two programs٣٠
:Total hours for both programs٥٩

:Second academic level / First program

T	Course name in Arabic	Course name in English	Number of hours			Number of units	The symbol	Type of requirements
			N	A	M			
1	defensive skills	Defensive Techniques	1	2	3	3	TIHAO200	The institute is mandatory
2	Organic Chemistry	organic chemistry	٢	2	٤	٤	FRSC 202	.The section is mandatory
3	writing reports	Report Writing	1	2	3	3	TIHAO201	The institute is mandatory
4	weapons and ammunition	Ammunition and Weapons	1	2	3	3	FRSC 211	.The section is mandatory
5	Explosives and fires	Explosives and fires	1	٢	٣	٣	FRSC212	.The section is mandatory
6	Criminal Procedures	Principle of Criminal Procedure	٢	2	٤	٤	FRSC214	.The section is mandatory
7	Professional ethics	Professional behavior	2	--	2	2	NTU 201	University compulsory
8	Forensic medicine	Forensic medicine	1	٣	٤	٤	FRSC215	Compulsory section
9	Baath regime crimes		2	-	2	2	NTU202	University compulsory
	the total		13	15	28	28		

:Second academic level / Second program

T	Course name in language Arabic	Course name in English	Number of hours			The symbol	type Requirements
			N	A	M		
1	organized crime	Organized Crime	2	2	4	FRSC216	Department compulsory
2	fingerprints and prints	Finger Prints and foot Impressions	1	2	3	FRSC218	Department compulsory
3	computer	research project	١	١	٢	NTU 201	University optional
4	Toxins and drugs	Morcotics and Poisons	1	2	3	FRSC219	Department optional

5	forgery and counterfeiting	Falsification and Forgery	1	2	3		FRSC220	Department optional
6	traffic accidents	Traffic accidents	1	2	3		FRSC221	Department optional
7	English language	English language	2	- -	2		NTU 200	university compulsory
8	Research project	Proposal	- -	2	2		FRSC217	Department Obligatory
the total			9	١٣	22			

:Total theoretical hours for the two programs٢٢ :Total practical hours for the two programs٢٨
:Total hours for the two programs٥٠ :Total units for the two programs٥٠

Program description-٧				
Credit hours		Course name	Course code	Year/Level
practical	theoretical			
٤١	٢٥	Forensic Evidence Techniques First	Frsc1	First/٢٠٢٥-٢٠٢٤
٤١	٢٩	Forensic Evidence Techniques II	Frsc2	second/٢٠٢٥-٢٠٢٤

٨- Expected learning outcomes of the program

Cognitive objectives Æ

١- Understanding the basic principles of forensic evidence: Providing students with knowledge about the basics of forensic evidence, including the different types of evidence and methods of collecting and analyzing them.

٢- Analysis of physical evidence: Providing students with the ability to analyze physical evidence such as fingerprints, biological traces (DNA)، and chemical evidence (such as drugs and toxins), and to use advanced tools and techniques for this.

٣- Familiarity with modern technological techniques: Teaching students how to use modern techniques in analyzing data and evidence, including digital imaging techniques, digital fingerprint analysis, and the use of specialized software.

Understanding legal frameworks: Introducing students to the legal aspects -٤
related to forensic evidence, including how to present evidence before courts
. and respect proper legal procedures to ensure the validity of evidence

Developing research and investigation skills: Enhancing students' skills in -٥
conducting field investigations, starting from collecting evidence at the crime
scene to analyzing it and presenting the results in a scientific and systematic
. manner

Professional ethics: Instilling ethical concepts related to forensic work, -٦
including integrity, impartiality, and respect for the rights of individuals at all
. stages of work

Scientific communication: Enabling students to present accurate scientific -٧
reports and convincing testimonies in court based on the scientific analysis of
. forensic evidence

B - Program skill objectives

. Accurately collect evidence from crime scenes while maintaining its integrity -١

-٢. Analysis of laboratory evidence using chemical and biological techniques

-٣. Using digital technologies to analyze electronic and digital evidence

.٤. Crime scene assessment and field evidence interpretation

.٥. Prepare clear criminal reports and provide convincing testimony in court

.٦. Cooperation and teamwork with various investigation teams

٧. Critical thinking and problem solving in complex investigations

٨. Time management and organization in investigations

٩. Commitment to professional ethics in collecting and analyzing evidence

Teaching and learning methods

Theoretical lectures: to provide students with the scientific and legal basics of ١
١. forensic evidence

Practical training: Applying skills in specialized laboratories to analyze physical
٢. evidence

Field Study: Visits to real or simulated crime scenes to develop evidence
٣. collection skills

Project-based learning: Implement practical projects to analyze evidence and
٤. prepare forensic reports

٥. Software training: Use of specialized software to analyze digital evidence

.٦. Group discussions: to analyze case studies and exchange opinions

Problem-based learning: to develop critical thinking and the ability to solve
٧. criminal cases

Evaluation methods

.Written and oral exams (daily and semester) -١
.Committees for discussing students' research and reports -٢
.Summer training -٣

. C- Emotional and value goals
.Creating a spirit of cooperation in the field of teamwork -١
. Avoid bias and vengeful treatment -٢
.Make the set goal to improve the work reality -٣
.Humanity in dealing with others -٤

Teaching and learning methods

.Theoretical lectures -١
.Documentary films -٢
.Scientific laboratories -٣

Evaluation methods -٩

.Daily exams -١
.Midterm exams -٢
.Direct questions -٣

D - General and transferable skills (other skills related to employability and
. (personal development
١. Effective communication skills -١
٢. Critical thinking and information analysis
٣. Problem solving in investigations
٤. Time management and organization
.٥. Teamwork and cooperation
.٦. Mastery of specialized technologies and software
٧. Commitment to professional ethics
٨. Documenting evidence and preparing reports

Teaching and learning methods -١٠

.Continuing education lectures -١
.Summer training -٢
. Scientific visits to medical work sites -٣
.Direct meetings with specialists -٤

Evaluation methods

.Reports and research committees -١
.Personal interviews -٢
.Observation at work -٣
.A form containing questions related to work in the criminal field -٤

Faculty .١١						
Faculty members						
Academic rank	Specialization		Special requirements/skills (if any)		Faculty preparation	
	general	private			angel	lecturer
assistant professor	law	Special law			angel	
teacher	medicine	General surgery			angel	
teacher	law	General Law			angel	
teacher	chemistry	Organic Chemistry			angel	
teacher	chemistry	Biochemistry			angel	
Assistant Professor	law	General Law			angel	
Assistant Professor	Sociology	Sociology			angel	

Professional development
Orientation of new faculty members
- Training courses, workshops and seminars in the field of forensic science - Courses, workshops and seminars on education and learning - Courses, workshops and seminars on laboratory equipment - Courses, workshops and seminars on how to publish scientific research
Professional development for faculty members
- Training courses, workshops and seminars in the field of forensic science - Developing scientific publishing skills in the field of forensic science

١٢- Acceptance criteria

Through central admission within the Ministry's plan, and according to the student's branch in middle school, his GPA, and his desire.

Professional development for faculty members

- **Specialized training**: Attending training courses and workshops in the fields of forensic evidence and modern techniques used in investigations.
- **Scientific research**: Encouraging faculty members to conduct research and publish it in prestigious scientific journals, thus enhancing advanced knowledge in this field.
- **Academic cooperation**: establishing partnerships with international universities and institutions to exchange expertise and learn about the latest developments.
- **Scientific conferences**: Participation in local and international conferences and seminars to present research and learn about the latest developments.
- **Practical training**: Providing practical training opportunities in cooperation with security agencies and forensic laboratories to develop practical skills.

١٣- The most important sources of information about the program

- **: Educational institution's website**Provides details about the curriculum, objectives, and teaching staff.

- **Academic guides**: Student handbooks or guides that provide details about courses and study plans.
- **Academic Advisor**: Provides direct guidance on academic path and program requirements.

Workshops and seminars: events organized by the institution or specialized bodies to present developments in the field of forensic evidence.

Program Development Plan for the Forensic Evidence Department -١٤

- • **Curriculum Update**: Academic content is periodically reviewed to include the latest techniques and tools used in criminal investigations.
- **Enhancing the practical aspect**: Increasing opportunities for practical and field training in cooperation with security agencies and forensic laboratories.
- **Infrastructure development**: Equipping laboratories and facilities with modern technologies and advanced forensic analysis tools.
- Continuous **training for faculty members**: Providing training courses and workshops for faculty members to learn about the latest techniques and research in the field of forensic evidence.
- **Cooperation with external institutions**: Building partnerships with international forensic laboratories and local security institutions to exchange expertise and provide training opportunities.
- **Encouraging scientific research**: Supporting faculty members and students to conduct and publish innovative research in the field of forensic evidence.
- **Continuous evaluation**: Establish mechanisms for periodic evaluation of the program based on feedback from students, graduates, and stakeholders.
- **Strengthening partnerships with security sectors**: to provide additional .job and training opportunities for graduates

Curriculum Skills Map

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

				Required learning outcomes of the program											
Year/ Level	**Course code**	**Course name**	**essential Or my choice**	**knowledge**				**Skill**				**values**			
				A١	**A ٢**	**A ٣**	**A ٤**	**B١**	**B٢**	**B٣**	**B٤**	**Part ١**	**Part ٢**	**Part ٣**	**A ٤**
	NTU 100	Human Rights and Democracy (Level One) Chapter One	**General**	*	*	*	*	*	*	*	*	*	*	*	*
	NTU 101	English Language/ (Level One) Second Semester	**General**	*	*	*	*	*	*	*	*	*	*	*	*
	NTU102	Computer Principles/ (Level One) First Semester	**General**	*	*	*	*	*	*	*	*	*	*	*	*
	NTU 103	Arabic Language (Level ١) Second Semester	**General**	*	*	*	*	*	*	*	*	*	*	*	*
the first	NTU 106	French Language (Level ١) First Semester	**General**	*	*	*	*	*	*	*	*	*	*	*	*
	NTU 104	Sports (Level ١) First Semester	**General**	*	*	*	*	*	*	*	*	*	*	*	*
the first	TIHA100	Life Sciences	**assistant**	*	*	*	*	*	*	*	*	*	*	*	*
	TIHA102	General Penal Code	**essential**	*	*	*	*	*	*	*	*	*	*	*	*
the first	FRSC100	Principles of Psychology	**General**	*	*	*	*	*	*	*	*	*	*	*	*
	FRSC101	Criminology	**essential**	*	*	*	*	*	*	*	*	*	*	*	*
	FRSC102	forensic photography	**essential**	*	*	*	*	*	*	*	*	*	*	*	*
	FRSC103	Hardware technologies	**essential**	*	*	*	*	*	*	*	*	*	*	*	*
	FRSC104	criminal investigation	**essential**	*	*	*	*	*	*	*	*	*	*	*	*
	FRSC105	First aid	**essenti**	*	*	*	*	*	*	*	*	*	*	*	*

			al												
	FRSC106	crime scene	**assistant**	*	*	*	*	*	*	*	*	*	*	*	*
	FRSC107	Forensic Sciences	**essential**	*	*	*	*	*	*	*	*	*	*	*	*
	FRSC108	Introduction to Serology and Hematology	**essential**	*	*	*	*	*	*	*	*	*	*	*	*
the second	NTU 200	language English	**General**	*	*	*	*	*	*	*	*	*	*	*	*
	NTU 202	/ Arabic language	**General**	*	*	*	*	*	*	*	*	*	*	*	*
	NTU 201	computer	**General**	*	*	*	*	*	*	*	*	*	*	*	*
	NTU 203	Baath regime crimes in Iraq	**General**	*	*	*	*	*	*	*	*	*	*	*	*
	NTU204	Professional Ethics (Level (Two	**General**	*	*	*	*	*	*	*	*	*	*	*	*
	TIHAO200	defensive skills	**assistant**	*	*	*	*	*	*	*	*	*	*	*	*
	TIMO202	Organic Chemistry	**essential**	*	*	*	*	*	*	*	*	*	*	*	*
	TIHAO201	Report writing	**General**	*	*	*	*	*	*	*	*	*	*	*	*
	FRSC 211	weapons and equipment	**essential**	*	*	*	*	*	*	*	*	*	*	*	*
	FRSC212	Explosives and fires	**essential**	*	*	*	*	*	*	*	*	*	*	*	*
	FRSC214	Criminal Procedures	**assistant**	*	*	*	*	*	*	*	*	*	*	*	*
	FRSC215	Forensic medicine	**essential**	*	*	*	*	*	*	*	*	*	*	*	*
	FRSC216	organized crime	**essential**	*	*	*	*	*	*	*	*	*	*	*	*
	FRSC217	Research project	**assistant**	*	*	*	*	*	*	*	*	*	*	*	*
	FRSC218	fingerprints and prints	**essential**	*	*	*	*	*	*	*	*	*	*	*	*
	FRSC219	Toxins and drugs	**essential**	*	*	*	*	*	*	*	*	*	*	*	*
	FRSC220	forgery and counterfeiting	**essential**	*	*	*	*	*	*	*	*	*	*	*	*
	FRSC221	traffic accidents	**essential**	*	*	*	*	*	*	*	*	*	*	*	*

Course Description Form (Forensic science)

١. Course name
Forensic Sciences
٢. Course code
FRSC107
٣. semester/year
Chapter ٢ 2025-2024
٤. Available attendance forms
In-person and online
٥. semester/year
Chapter ٢ 2025-2024
٦. Number of credit hours (total) / Number of units (total)
Number of hours (٧٥ hours) / Number of units)٥(
٧. Course Supervisor Name (List all names, if there is more than one)
the name: His Eminence Salman Aziz :e-mail
٨. Course objectives (general objectives of the course)
Introducing the student to the concept and importance of forensic sciences and their role in achiev criminal justice. **Providing the student with basic knowledge** about the types of forensic evidence, such as biologic chemical, digital, and physical evidence. **Qualifying the student to understand the scientific procedures** used in collecting, preserving a analyzing evidence from the crime scene. **Developing the student's skills in using modern devices and technologies** used in forensic evider analysis. **Educating students about the legal and ethical aspects** related to handling forensic evidence, such .chain of custody and confidentiality of information
٩. Course outcomes , teaching, learning and assessment methods **Course outcomes** **identification:It is a set of knowledge, skills and values that the course seeks to achieve in students.** **Its importance: It provides the learner with a clear idea of what he will be able to do after completing the course, and helps in designing and evaluating academic courses.** **How is it determined?are determined based on the The course outcomes objectives of the academic program to which the course belongs.**

Outputs	Teaching and learning methods	Evaluation methods
أ- knowledge ١- **Defines the basic concepts of forensic science** , such as: physical, biological, chemical, and digital evidence. ٢- **Explains the stages of dealing with forensic evidence,** starting from collecting it at the crime scene until analyzing it in the laboratory. ٣- **Distinguish between the types of forensic evidence** and the analysis methods used for each type. ٤- **Explains the importance of maintaining the chain of custody.** Its role in ensuring the legality of evidence.	**Presentation, explanation, questions and answers, discussion**	• Assign ments and duties • Quiz • practica l control • monthl y test Final written exam
B - Skills ١- **Apply correct methods to collect forensic evidence** from the crime scene without contaminating or losing it. ٢- **Uses appropriate tools and equipment to perform** preliminary biological, physical, and chemical evidence analysis. ٣- **Documents forensic evidence in a scientific and organized manner** according to established standards e.g., photography, marking,) (packaging, forms. ٤- **Implements steps to maintain the chain of custody of evidence** to ensure its admissibility before the courts.	**Active learning : involves active and interactive in participation The learning process through practicing activities and practical applications.**	• Assign ments and duties • Quiz • practica l control • monthl y test Final written exam
C- Values ١- **Demonstrates a high commitment to professional ethics** while handling forensic evidence and crime scenes.	Self-learning cooperative learning Blended learning	• Assign ments and duties • Quiz

-٢ **Respects the confidentiality of information** related to cases and evidence, and avoids disclosing them without legal authorization. -٣ **Appreciates the importance of criminal justice** and the role of scientific evidence in serving society and achieving fairness. -٤ **Commitment to accuracy and scientific integrity** in collecting, analyzing, and documenting evidence.		• practical control • monthly test Final written exam

٠.Course structure (Theoretical and practical vocabulary)

week	watches	Required learning outcomes	Unit name/topic	Teaching method	Evaluation method
the first	2	**Introducing the student to the concept and importance of forensic science** and its role in achieving criminal justice.	The concept and importance of forensic science	Active learning: involves active and interactive participation in the learning process through practical activities and .applications	Assignments and duties Quiz practical control monthly test Final written exam
the second	2	**Providing the student with basic knowledge** about the historical development of forensic sciences .in the world	Historical development of forensic evidence	learning Active : Includes Participation effective and interactive in practical learning from during practice Activities and applications The process	Assignments and duties Quiz practical control monthly test Final written exam
the third	2	**Providing the student with basic knowledge** about the types of forensic evidence, such as	Types of forensic evidence	learning Active : Includes Participation effective and	Assignments and duties Quiz practical control monthly test Final

		biological, chemical, digital, and physical evidence.		interactive in practical learning from during practice Activities and applications The process	written exam
Fourth	2	**Providing the student with basic knowledge** about the types of forensic evidence and physical .traces	Forensic evidence and physical traces	learning Active : Includes Participation effective and interactive in practical learning from during practice Activities and applications The process	Assignments and duties Quiz practical control monthly test Final written exam
Fifth	2	**Providing the student with basic knowledge** about the importance of genetic .fingerprinting	The importance of the fingerprint in achieving personality	learning Active : Includes Participation effective and interactive in practical learning from during practice Activities and applications The process	Assignments and duties Quiz practical control monthly test Final written exam
Sixth	2	**Providing the student with basic knowledge** about the types of fingerprints and the techniques .used	Fingerprints and the use of nanotechnology in their detection	Active learning: involves active and interactive participation in the learning process through practical activities and .applications	Assignments and duties Quiz practical control monthly test Final written exam

Sevent	2	**Providing the student with basic knowledge** about the importance of forensic medicine in determining the .cause of death	Forensic medicine	Active learning: involves active and interactive participation in the learning process through practical activities and .applications	Assignments and duties Quiz practical control monthly test Final written exam
The eighth	2	**Providing the student with basic knowledge** about the importance of forensic chemistry in determining the .cause of death	forensic chemistry	Active learning: involves active and interactive participation in the learning process through practical activities and .applications	Assignments and duties Quiz practical control monthly test Final written exam
Ninth	2	**Providing the student with basic knowledge** about the importance of forensic toxicology in determining the .cause of death	forensic toxicology	Active learning: involves active and interactive participation in the learning process through practical activities and .applications	Assignments and duties Quiz practical control monthly test Final written exam
tenth	2	**Providing students with basic knowledge** about the importance of detecting passport and banknote .counterfeiting	Forging passports and counterfeiting banknotes	Active learning: involves active and interactive participation in the learning process through practical	Assignments and duties Quiz practical control monthly test Final written exam

				activities and .applications	
elevent	2	**Providing the student with basic knowledge** about the importance of examining traces of weapons and .tools	Examination of traces of weapons and tools	Active learning: involves active and interactive participation in the learning process through practical activities and .applications	Assignments and duties Quiz practical control monthly test Final written exam
twelfth	2	**Providing the student with basic knowledge** about the importance of identifying the crime scene and the procedures for .preserving it	Crime scene and preservation procedures	Active learning: involves active and interactive participation in the learning process through practical activities and .applications	Assignments and duties Quiz practical control monthly test Final written exam
thirteen	2	**Providing the student with basic knowledge** about the importance of identifying electronic .criminal tools	Electronic forensic tool	Active learning: involves active and interactive participation in the learning process through practical activities and .applications	Assignments and duties Quiz practical control monthly test Final written exam
fourtee h	2	**Providing the student with basic knowledge** about the importance of forensic .engineering	Forensic engineering	Active learning: involves active and interactive participation in the learning	Assignments and duties Quiz practical control monthly test Final written exam

				process through practical activities and .applications	
First lal	3	**Providing students with basic knowledge** about the importance of identifying types of forensic .evidence	Lab 1: Types of Forensic Evidence	Learning through practical activities and applications	practical control monthly test Final written exam
the second	3	**Providing students with basic knowledge** about the importance of genetic fingerprinting in determining .personality	Lab 2: The importance of the fingerprint in achieving personality	Learning through practical activities and applications	practical control monthly test Final written exam
the thir	3	**Providing the student with basic knowledge** about the importance of Fingerprints and the use of nanotechnology in their detection	Lab 3: Fingerprints and the Use of Nanotechnology in Detecting Them	Learning through practical activities and applications	practical control monthly test Final written exam
Fourth	3	**Providing the student with basic knowledge** about the importance of forensic chemistry in determining the .cause of death	Lab 4: Forensic Chemistry	Learning through practical activities and applications	practical control monthly test Final written exam
Fifth	3	**Providing the student with basic knowledge** about the importance of forensic .toxicology	Lab 5: Forensic Toxicology	Learning through practical activities and applications	practical control monthly test Final written exam
Sixth	3	**Providing students with basic knowledge** about the importance of	Lab 6: Passport Forgery and Banknote Counterfeiting	Learning through practical activities and	practical control monthly test Final written

		detecting passport and banknote .counterfeiting		applications	exam
Sevent	3	**Providing the student with basic knowledge** about the importance of Crime scene and preservation procedures	Lab 7: Crime Scene and Preservation Procedures	Learning through practical activities and applications	practical control monthly test Final written exam

١١. Curriculum Development Plan

Continuously updating the curriculum to keep pace with developments in the :labor market (Curriculum Update Committee, Scientific Committee) such as

١- Develop curricula that are compatible with the labor market

٢- Holding scientific seminars and conferences aimed at updating curricula

٣- Follow up on scientific developments in the field of specialization

١٢. infrastructure

Classrooms, laboratories and worksho	**Available**
١- Required textbooks	**Available**
٢- Main References (Sources)	**" Forensic Evidence - Scientific and Technical Foundations" book** **Author:** Dr. Ahmed Abdullah Al-Ghannam **Publisher:** Dar Al Thaqafa for Publishing and Distribution **Edition:** Frequent - used in a number of criminal justice colleges and institutes in the Arab world **Content:** Covers the scientific and applied aspects of collecting and analyzing evidence, with real-life examples.
أ) Recommended books and references (scientific journals, .reports , etc	**5. Criminalistics: An Introduction to Forensic Science** • **Author:** Richard Saferstein • **Edition:** 12th Edition or later • **Publisher:** Pearson

	• **Description:** One of the most popular academic references in forensic science, covering chemical, biological, fingerprint, and weapons analyses. **6. Forensic Science: From the Crime Scene to the Crime Lab** • **Author:** Richard Saferstein • **Description:** A practical reference for diploma and bachelor's students in evidence sciences.
ب) Electronic references, websites،.....	**https://classroom.google.com/c/Nz NTUwNTY0NDA0?cjc=6caa5prj**

Crime Scene Description Form

١. Course name
crime scene
٢. Course code
FRSC106
٣. Semester / Year
2024-2025Chapter ٢
٤. Description preparation date
2025\8\19
٥. Available attendance forms
My presence
٦. Number of credit hours (total) / Number of units (total)
number of hours Hour / Number of units)٥(30
٧. Course Supervisor Name (List all names, if there is more than one)
Name: Fahd Turki Mubarrad :Emailfahad-hti@ntu.edu.iq
٨. Course objectives (general objectives of the course)
Introducing the student to the concept and importance of crime scene science and its role in achieving criminal justice. **Providing the student with basic knowledge** about the types of forensic evidence, such as biological, chemical, digital, and physical evidence. **Qualifying the student to understand the scientific procedures** used in collecting, preserving and analyzing evidence from the crime scene. **Developing the student's skills in using modern devices and technologies** used in forensic evidence analysis. **Educating students about the legal and ethical aspects** related to handling forensic evidence, such as chain of custody .and confidentiality of information
٩. Course outcomes , teaching, learning and assessment methods **Course outcomes** **identification:It is a set of knowledge, skills and values that the course seeks to achieve in students.** **Its importance: It provides the learner with a clear idea of what he will be able to do after completing the course, and helps in designing and evaluating academic courses.** **How is it determined?Course outcomes are determined based on the objectives of the**

.academic program to which the course belongs		
Outputs	Teaching and learning methods	Evaluation methods
ب- knowledge (2) Define the basic concepts of crime scene science, such as physical, biological, chemical, .and digital evidence (3) Explaining the stages of crime scene processing, from collecting evidence at the scene to analyzing it in the laboratory. (4) Distinguish between the types of forensic evidence and the analytical methods used for each type. (5) Explain the importance of maintaining the chain of custody and its role in ensuring the legality of evidence.	**Presentation, explanation, questions and answers, discussion**	• **Assignments and duties** • **Quiz** • **practical control** • **monthly test** • **Final written exam**
B - Skills ١. Applying the correct methods for collecting forensic evidence from the crime scene without contaminating or losing it. ٢. Use appropriate tools and equipment for the initial analysis of biological, physical and chemical evidence. ٣. Documenting the crime scene in a scientific and organized manner according to approved standards (such as photography, marking, (packaging, and forms. ٤. Implement steps to maintain the chain of custody to ensure the admissibility of evidence in court.	**Active learning: involves active and interactive in The learning participation process through practical activities and applications.**	• **Assignments and duties** • **Quiz** • **practical control** • **monthly test** • **Final written exam**
C- Values ١. Demonstrate a high commitment to professional ethics when dealing with forensic evidence and crime scenes. ٢. Respect the confidentiality of information related to cases and evidence, and avoid disclosing them without legal authorization. ٣. Appreciating the importance of criminal justice and the role of scientific evidence in serving society and achieving justice. ٤. Commitment to scientific accuracy and integrity in collecting, analyzing and documenting evidence.	Self-learning cooperative learning Blended learning	• **Assignments and duties** • **Quiz** • **practical control** • **monthly test** • **Final written exam**

١. Course structure **(Theoretical and practical vocabulary)**					
week	watch es	Required learning outcomes	Unit name/topic	Teaching method	Evaluation method
the first	٢	**Introducing the student to the concept and importance** Crime scene and its role in achieving criminal justice.	The concept and importance of the crime scene	Active learning: involves active and interactive participation in the learning process through practical activities and .applications	**Assignments and duties Quiz practical control monthly test Final written exam**
the second	٢	**Providing the student with basic knowledge** about the historical development of forensic sciences in .the world	Historical development of forensic evidence	Active learning: involves active and interactive participation in the learning process through practical activities and .applications	**Assignments and duties Quiz practical control monthly test Final written exam**
the third	٢	**Providing the student with basic knowledge** about the types of crime scenes such as ، biological, chemical, digital, and physical evidence.	Types of crime scenes	Active learning: involves active and interactive participation in the learning process through practical activities and .applications	**Assignments and duties Quiz practical control monthly test Final written exam**
Fourth	٢	**Providing the student with basic knowledge** about crime scene theories	crime scene theories	Active learning: involves active and interactive participation in the learning process through practical activities and .applications	**Assignments and duties Quiz practical control monthly test Final written exam**

Fifth	٢	**Providing the student with basic knowledge** about the importance of .inspection	The importance of inspection	Active learning: involves active and interactive participation in the learning process through practical activities and .applications	**Assignments and duties** **Quiz** **practical control** **monthly test** **Final written exam**
Sixth	٢	**Providing the student with basic knowledge** about seizing physical evidence at the crime .scene	Seizing physical evidence at the crime scene	Active learning: involves active and interactive participation in the learning process through practical activities and .applications	**Assignments and duties** **Quiz** **practical control** **monthly test** **Final written exam**
Seventh	٢	**Providing the student with basic knowledge** about the importance of .inspection	Inspection and its importance	Active learning: involves active and interactive participation in the learning process through practical activities and .applications	**Assignments and duties** **Quiz** **practical control** **monthly test** **Final written exam**
The eighth	٢	**Providing the student with basic knowledge** about the importance of physical elements at a .crime scene	Physical elements at the crime scene	Active learning: involves active and interactive participation in the learning process through practical activities and .applications	**Assignments and duties** **Quiz** **practical control** **monthly test** **Final written exam**
Ninth	٢	**Providing the student with basic knowledge** about the importance of the crime .scene scope	crime scene scope	Active learning: involves active and interactive participation in the learning process through practical	**Assignments and duties** **Quiz** **practical control** **monthly test** **Final written exam**

				activities and .applications	
tenth	٢	**Providing the student with basic knowledge** about the importance of the types of physical evidence at the crime .scene	Types of physical evidence at a crime scene	Active learning: involves active and interactive participation in the learning process through practical activities and .applications	**Assignments and duties** **Quiz** **practical control** **monthly test** **Final written exam**
eleventh	٢	**Providing the student with basic knowledge** about the importance of examining traces of weapons and .tools	Examination of traces of weapons and tools	Active learning: involves active and interactive participation in the learning process through practical activities and .applications	**Assignments and duties** **Quiz** **practical control** **monthly test** **Final written exam**
twelfth	٢	**Providing the student with basic knowledge** about the importance of identifying the crime scene and the procedures for .preserving it	Crime scene and preservation procedures	Active learning: involves active and interactive participation in the learning process through practical activities and .applications	**Assignments and duties** **Quiz** **practical control** **monthly test** **Final written exam**
thirteenth	٢	**Providing the student with basic knowledge** about the importance of identifying initial information about a crime .scene	Initial crime scene investigation	Active learning: involves active and interactive participation in the learning process through practical activities and .applications	**Assignments and duties** **Quiz** **practical control** **monthly test** **Final written exam**
fourteenth	٢	**Providing the student with basic knowledge** about the importance of	Preserving physical evidence at the crime scene	Active learning: involves active and interactive participation in the learning	**Assignments and duties** **Quiz** **practical control** **monthly test** **Final written exam**

		forensic engineering.		process through practical activities and applications.	
fifteenth	٢	**Providing the student with basic knowledge** about the importance of reconstructing the crime scene.	crime scene reconstruction	Learning through practical activities and applications	**practical control monthly test Final written exam**

٢. Curriculum Development Plan

Continuously updating the curriculum to keep pace with developments in the labor market :(Curriculum Update Committee, Scientific Committee) such as

٤- Develop curricula that are compatible with the labor market

٥- Holding scientific seminars and conferences aimed at updating curricula

٦- Follow up on scientific developments in the field of specialization

٣. infrastructure

Classrooms, laboratories and worksho	**Available**
٣- Required textbooks	**Available**
٤- Main References (Sources)	**" Forensic Evidence - Scientific and Technical Foundations" book** **Author:** Dr. Ahmed Abdullah Al-Ghannam **Publisher:** Dar Al Thaqafa for Publishing and Distribution **Edition:** Frequent - used in a number of criminal justice colleges and institutes in the Arab world **Content:** Covers the scientific and applied aspects of collecting and analyzing evidence, with real-life examples.
ت) Recommended books and references (scientific journals, reports , etc.)	**5. Criminalistics: An Introduction to Forensic Science** • **Author:** Richard Saferstein • **Edition:** 12th Edition or later • **Publisher:** Pearson • **Description:** One of the most popular academic references in forensic science, covering chemical, biological, fingerprint, and weapons analyses. **6. Forensic Science: From the Crime Scene to the Crime Lab** • **Author:** Richard Saferstein

	• **Description:** A practical reference for diploma and bachelor's students in evidence sciences.
ث) Electronic references, ...،websites	**https://classroom.google.com/c/Nzc3NTUwNTY0DA0?cjc=6caa5prj**

Course Description Form

١٣. Educational Institution : Northern Technical University - Al-Hawija Technic Institute
١٤. Scientific Department Criminal Evidence Department
١٥. Course Name/Code : Medical Terminology
١٦. Available attendance forms : In-person
١٧. Semester/Year ٢٠٢٤-٢٠٢٥
١٨. Number of study hours (total): ٣٠
١٩. Date of preparation of this description : ١٩-٨-٢٠٢٥
٢٠. Course objectives (general objectives of the course) ١- Introducing the student to the basics of constructing medical terminology in terms of roots, syllables, and suffixes. ٢- Enable the student to understand and interpret medical terms contained in forensic reports and crime scene records. ٣- Prepare the student to use medical terminology correctly in the context of field or laboratory work in forensic evidence. ٤- Enhancing the student's skills in communicating with medical and security personnel using precise professional language. ٥- Linking medical terms to vital organs and anatomy to serve the forensic analysis of injuries or deaths.

٦- Enable the student to distinguish between medical conditions associated with forensic factors such as poisoning, suffocation, trauma, or bleeding.
٢١. Course outcomes , teaching, learning and assessment methods

Evaluation methods	Teaching and learning methods	Outputs
-١ **Theoretical tests**(Midterm and final exam) **Reports** -٢ **Classroom** -٣ **assignments and activities**	-١ Theoretical lectures using multimedia -٢ Demonstrations and practical training	ت- knowledge ١- **Defines the components of a medical term (root, prefix, suffix) and their use in vocabulary building.** ٢- ٣- **Explains common medical terms related to the human body's systems (respiratory, nervous, circulatory, etc.).** ٤- ٥- **Interprets medical terms used in forensic reports and medical forensic documents.**
-١ **Theoretical tests**(Midterm and final exam) **Reports** -٢ **Classroom** -٣ **assignments and activities**	-١ Theoretical lectures using multimedia -٢ Demonstrations and practical training	B - Skills ١- **Applies terminology analysis rules to understand complex medical words.** ٢- ٣- **Uses medical terminology accurately in writing or interpreting forensic and criminal evidence reports.** ٤- ٥- **Uses correct medical vocabulary when communicating with medical and forensic personnel.**
-١ **Theoretical**	-١ Theoretical	C- Values

tests(Midterm and final exam) **Reports** -٢ **Classroom** -٣ **assignments and activities**	lectures using multimedia -٢ Demonstrations and practical training	**١- Shows respect for the ethics of using medical terms in sensitive contexts such as deaths or crimes.** **٢- Committed to accuracy and professionalism in handling medical information related to forensic evidence.**

٢٢.Course structure **(Theoretical and practical vocabulary)**

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	watches	week
-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignments**	Theoretical -١ lectures using multimedia -٢ Demonstrations and practical training	**Introductio to Terminolog Medical an Its importance criminal fie**	Understands the basics o medical terminology ،roots, antecedents) Suffixes) and their precis meanings. Distinguish between medical terms Used to describe body parts and their functions. Explains common medic terms in forensic and .criminal reports	2	the first
-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignments**	Theoretical -١ lectures using multimedia -٢ Demonstrations and practical training	**Word building :Medical ،roots ،precedents Suffixes**	Understands the basics o medical terminology ،roots, antecedents) Suffixes) and their precis meanings. Distinguish between medical terms Used to describe body parts and their functions. Explains common medic terms in forensic and .criminal reports	2	the seco
-١ **Theoretical tests** -٢ **Practical evaluation**	Theoretical -١ lectures using multimedia -٢ Demonstratio and practic	**Terms The device Structural and Muscular**	Understands the basics o medical terminology ،roots, antecedents) Suffixes) and their precis meanings. Distinguish	2	the third

-٣ **Reports and assignments**	training		between medical terms Used to describe body parts and their functions. Explains common medic terms in forensic and .criminal reports		
-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignments**	Theoretical -١ lectures using multimedia -٢ Demonstratio and practic training	**Terms The device nervous**	Understands the basics o medical terminology ،roots, antecedents) Suffixes) and their precis meanings. Distinguish between medical terms Used to describe body parts and their functions. Explains common medic terms in forensic and .criminal reports	2	Fourth
-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignments**	Theoretical -١ lectures using multimedia -٢ Demonstratio and practic training	**Terms The device respiratory**	Understands the basics o medical terminology ،roots, antecedents) Suffixes) and their precis meanings. Distinguish between medical terms Used to describe body parts and their functions. Explains common medic terms in forensic and .criminal reports	2	Fifth
-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports**	Theoretical -١ lectures using multimedia -٢ Demonstratio and practic training	**Terms The device The league the heart) and vessels (bloody**	Understands the basics o medical terminology ،roots, antecedents) Suffixes) and their precis meanings. Distinguish between medical terms Used to describe body parts and their functions. Explains common medic	2	Sixth

and assignments			terms in forensic and .criminal reports		
-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignments**	Theoretical -١ lectures using multimedia -٢ Demonstratio and practic training	**Terms The device Digestive**	Understands the basics o medical terminology ،roots, antecedents) Suffixes) and their precis meanings. Distinguish between medical terms Used to describe body parts and their functions. Explains common medic terms in forensic and .criminal reports	2	Seventh
-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignments**	Theoretical -١ lectures using multimedia -٢ Demonstratio and practic training	**a test Semester (half)**	Understands the basics o medical terminology ،roots, antecedents) Suffixes) and their precis meanings. Distinguish between medical terms Used to describe body parts and their functions. Explains common medic terms in forensic and .criminal reports	2	The eigl
-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignm**	Theoretical -١ lectures using multimedia -٢ Demonstratio and practic training	**Terms urinary system**	Understands the basics o medical terminology ،roots, antecedents) Suffixes) and their precis meanings. Distinguish between medical terms Used to describe body parts and their functions. Explains common medic terms in forensic and .criminal reports	2	Ninth

ents					
-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignments**	Theoretical -١ lectures using multimedia -٢ Demonstratio and practic training	**Terms Skin a senses**	Understands the basics o medical terminology ،roots, antecedents) Suffixes) and their precis meanings. Distinguish between medical terms Used to describe body parts and their functions. Explains common medic terms in forensic and .criminal reports	2	tenth
-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignments**	Theoretical -١ lectures using multimedia -٢ Demonstratio and practic training	**Injury Terminolog and fractio And bleedi**	Understands the basics o medical terminology ،roots, antecedents) Suffixes) and their precis meanings. Distinguish between medical terms Used to describe body parts and their functions. Explains common medic terms in forensic and .criminal reports	2	eleventh
-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignments**	Theoretical -١ lectures using multimedia -٢ Demonstratio and practic training	**Terms medicine legitimate and reports Medical forensics**	Understands the basics o medical terminology ،roots, antecedents) Suffixes) and their precis meanings. Distinguish between medical terms Used to describe body parts and their functions. Explains common medic terms in forensic and .criminal reports	2	twelfth
-١ **Theoretical**	Theoretical -١ lectures using	**study Cases**		2	thirteent

tests -٢ **Practical evaluation** -٣ **Reports and assignments**	multimedia -٢ Demonstratio and practic training	**Forensic) medical reports And analy (of its term**			
-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignments**	Theoretical -١ lectures using multimedia -٢ Demonstratio and practic training	**review Compreher ve Practical training terminolog**		2	fourteen
-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignments**	Theoretical -١ lectures using multimedia -٢ Demonstratio and practic training	**Test Final**		2	fifteenth

٢٣. Curriculum Development Plan

١- **Review the course content periodically to keep pace with developments in modern medical and legal terminology.**

٢-

٣- Updating learning resources by introducing e-books, a digital medical dictionary, and supporting educational applications. ٤- ٥- Enhance the practical side by analyzing real (de-identified) forensic reports. ٦- ٧- Use interactive learning techniques such as video presentations, explanatory videos, and case-based learning . ٨- ٩- Training students to use specialized medical dictionaries in English and Arabic.

٢٤. infrastructure	
Available	**Classrooms, laboratories and worksho**
Available	**٥- Required textbooks**
Chabner , D.-E. (2022). The Language of Medicine (12th ed.). Elsevier . **A comprehensive book widely used for teaching medical terminology with practical examples and exercises.** **Smith, L. (2020). Medical Terminology for Health Professions (9th ed.). Cengage Learning .** **It deals with medical terminology in a simplified manner and relies on building vocabulary from roots and syllables.**	**٦- Main References (Sources)**
Tortora , G. J., & Derrickson , B. (2020). Principles of Anatomy and Physiology (16th ed.). Wiley .	**ج) Recommended books and references (scientific journals, reports , etc.)**
خ) **MedlinePlus – Medical Dictionary** (US National Library of Medicine) https://medlineplus.gov/medicalwords.html A free and easy-to-use resource for understanding medical terminology. د) **Merriam-Webster Medical Dictionary** https://www.merriam-webster.com/medical A reliable medical dictionary to interpret terms with linguistic accuracy.	**ح) Electronic references, websites،.....**

ذ) **Taber's Cyclopedic Medical Dictionary** (Online edition) https://www.tabers.com A medical reference encyclopedia for students and health professionals.	

First Aid Course Description Form

٢٥. Educational Institution : Northern Technical University - Al-Hawija Technic Institute
٢٦. Scientific Department Criminal Evidence Department
٢٧. : Course Name/CodeOMT103
٢٨. Available attendance forms : In-person
٢٩. Semester/Year ٢٠٢٤-٢٠٢٥
٣٠. Number of study hours (total): ١٥٠
٣١. Date of preparation of this description : ١٩-٨-٢٠٢٥
٣٢. Course objectives (general objectives of the course) ٧- **Providing students with the practical skills** necessary to provide effective first aid at the scene of an accident or crime. ٨- **Enhance theoretical knowledge** on the basics of dealing with emergency injuries, bleeding, cardiopulmonary resuscitation(CPR) ، poisoning, and fractures. ٩- **Enabling students to quickly assess** the condition of injured people and determine priorities when providing first aid, while taking into account the preservation of forensic evidence. ١٠- **Develop awareness of the importance of personal safety** and the safety of others during field interventions.

١١- **Integrating first aid into field training** to suit the nature of forensic work in laboratories or crime scenes.

١٢- **Promote adherence to ethical and professional standards** when providing first aid, especially in the context of criminal and security work.

٣٣. Course outcomes , teaching, learning and assessment methods

Outputs	Teaching and learning methods	Evaluation methods
ث- knowledge **٦- Defines the basic concepts of first aid and their areas of application in criminal and field environments.** **٧- Explains the basic scientific and physiological principles of common injuries and medical emergencies.** **٨- Explains the steps for safely handling emergency situations without damaging forensic evidence.**	-١ Theoretical lectures using multimedia -٢ Demonstrations and practical training -٣ Simulation scenarios of real emergencies	-١ **Theoretical tests**(Midterm and final exam) -٢ **Practical evaluation**(Student's performance in applying first aid skills) -٣ **reports or case studies** -٤ **Classroom assignments and activities**
B - Skills **٦- Apply basic first aid techniques such as cardiopulmonary resuscitation(CPR) stopping ، bleeding, and dealing with burns and fractures.** **٧- Quickly assesses the condition of the injured person and determines priorities for intervention at the accident site.** **٨- Uses first aid tools and equipment in a correct and safe manner in field work sites.**	-١ Theoretical lectures using multimedia -٢ Demonstrations and practical training -٣ Simulation scenarios of real emergencies	-١ **Theoretical tests**(Midterm and final exam) -٢ **Practical evaluation**(Student's performance in applying first aid skills) -٣ **reports or case studies** -٤ **Classroom assignments and activities**

C- Values **٣- Demonstrates commitment to professional ethics and respect for the privacy of the injured when providing first aid.** **٤- Adheres to personal and public safety standards when responding to emergencies.** **٥- Works effectively within a team during emergency situations and respects each member's role in managing the situation.**	-١ Theoretical lectures using multimedia -٢ Demonstrations and practical training -٣ Simulation scenarios of real emergencies	-١ **Theoretical tests**(Midterm and final exam) -٢ **Practical evaluation**(Student's performance in applying first aid skills) -٣ **reports or case studies** -٤ **Classroom assignments and activities**

٣٤.Course structure **(Theoretical and practical vocabulary)**

week	watches	Required learning outcomes	Unit name/topic	Teaching method	Evaluation method
the first	2	Defines the basic -١ concepts of the lecture a their areas of application in criminal and field .environments Explains the basic -٢ scientific and physiological principles common injuries and .medical emergencies	Handling hea attacks and strokes.	Theoretical -١ lectures using multimedia -٢ Demonstration s and practical training	-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignments**
the seco	2	Defines the basic -١ concepts of the lecture a their areas of application in criminal and field .environments Explains the basic -٢ scientific and physiological principles common injuries and .medical emergencies	Poisoning	Theoretical -١ lectures using multimedia -٢ Demonstrations and practical training	-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignm ents**
the third	2	Defines the basic -١	Managing	Theoretical -١	-١

		concepts of the lecture a their areas of application in criminal and field .environments Explains the basic scientific a physiological principles common injuries a .medical emergencies	poisoning ca	lectures using multimedia -٢ Demonstratio and practic training	**Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignments**
Fourth	2	Defines the basic -١ concepts of the lecture a their areas of application in criminal and field .environments Explains the basic scientific a physiological principles common injuries a .medical emergencies	Heat and C Injuries	Theoretical -١ lectures using multimedia -٢ Demonstratio and practic training	-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignments**
Fifth	2	Defines the basic -١ concepts of the lecture a their areas of application in criminal and field .environments Explains the basic scientific a physiological principles common injuries a .medical emergencies	First aid heat-related cold-related injuries.	Theoretical -١ lectures using multimedia -٢ Demonstratio and practic training	-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignments**
Sixth	2	Defines the basic -١ concepts of the lecture a their areas of application in criminal and field .environments	Bites and Sti	Theoretical -١ lectures using multimedia -٢ Demonstratio and practic	-١ **Theoretical tests** -٢ **Practical evaluation**

		Explains the basic scientific a physiological principles common injuries a .medical emergencies		training	-٣ **Reports and assignm ents**
Seventh	2	Defines the basic -١ concepts of the lecture a their areas of application in criminal and field .environments Explains the basic scientific a physiological principles common injuries a .medical emergencies	Treatment animal insect bites.	Theoretical -١ lectures using multimedia -٢ Demonstratio and practic training	-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignm ents**
The eigl	2	Defines the basic -١ concepts of the lecture a their areas of application in criminal and field .environments Explains the basic scientific a physiological principles common injuries a .medical emergencies	Psychologica First Aid	Theoretical -١ lectures using multimedia -٢ Demonstratio and practic training	-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignm ents**
Ninth	2	Defines the basic -١ concepts of the lecture a their areas of application in criminal and field .environments Explains the basic scientific a physiological principles common injuries a	Providing emotional support emergencies.	Theoretical -١ lectures using multimedia -٢ Demonstratio and practic training	-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports**

		.medical emergencies			**and assignments**
tenth	2	Defines the basic -١ concepts of the lecture a their areas of application in criminal and field .environments Explains the basic scientific a physiological principles common injuries a .medical emergencies	First Aid Kit	Theoretical -١ lectures using multimedia -٢ Demonstratio and practic training	-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignments**
eleventh	2	Defines the basic -١ concepts of the lecture a their areas of application in criminal and field .environments Explains the basic scientific a physiological principles common injuries a .medical emergencies	Essentials their uses.	Theoretical -١ lectures using multimedia -٢ Demonstratio and practic training	-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignments**
twelfth	2	Defines the basic -١ concepts of the lecture a their areas of application in criminal and field .environments Explains the basic scientific a physiological principles common injuries a .medical emergencies	Review Practical Skil	Theoretical -١ lectures using multimedia -٢ Demonstratio and practic training	-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignm**

					ents
thirteent	2	Defines the basic concepts of the lecture a their areas of application in criminal and field .environments Explains the basic scientific a physiological principles common injuries a .medical emergencies	Skills rev and prac sessions.	Theoretical lectures using multimedia -٢ Demonstratio and practic training	-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignm ents**
fourteen	2		Final Assessment	Theoretical lectures using multimedia -٢ Demonstratio and practic training	-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignm ents**
fifteenth	2		Exam	Theoretical lectures using multimedia -٢ Demonstratio and practic training	-١ **Theoretical tests** -٢ **Practical evaluation** -٣ **Reports and assignm ents**
٣٥. Curriculum Development Plan					

١- **Keeping pace with scientific and medical developments in the field of first aid.** ٢- **Meeting the needs of the security and criminal labor market for field-trained cadres.** ٣- **Enhancing readiness to deal with emergency situations at crime scenes without compromising evidence.** ٤- **Introducing modern educational techniques and realistic simulation of cases.**	
٣٦. infrastructure	
Classrooms, laboratories and worksho	**Available**
٧- **Required textbooks**	**Available**
٨- **Main References (Sources)**	FReece J, Urry L, Cain M, Wasserman S, Minorsky Jackson, R. (Eds) 9th Global Edition, 2011, Camp Biology, Pearson Benjamin Cummings.
ر) **Recommended books and references (scientific journals, (.reports , etc**	Butler, J. (2005) Forensic DNA Typing 2nd Ed. Elsevier (ISBN: 9780121479 Forensic Science – Jackson AR & Jackson J., Prentice H ISBN: 130432512
ز) **Electronic references, ...،websites**	Cochrane reviews: http://www.cochrane.org/cochrane-reviews

Chemistry Course Description Form

٣٧. Educational institution
Technical Institute Huwayjah–
٣٨. Scientific Department
forensic techniques
٣٩. Course Name/Code
\ ChemistryTIHA101
٤٠. Available attendance forms
My presence
٤١. semester/year
Chapter ٢ 2025-2024
٤٢. Number of study hours (total)
200
٤٣. Date this description was prepared
2025\8\19
٤٤. Course objectives (general objectives of the course)
▪ **Introducing the student to the basic concepts of analytical chemistry and its importance practical applications.**

- **Providing the student with basic knowledge about the different concentrations of solutio . and methods of preparing them**
- **Preparing the student to understand the basic processes in chemical analysis, such . titration and gravimetric analysis**
- **. Developing the student's skills in using modern devices and techniques in spectral analy**
- **.Developing the student's general skills in the field of organic chemistry**

٤٥. Course outcomes , teaching, learning and assessment methods

Course outcomes

identification:It is a set of knowledge, skills and values that the course seeks to achieve in students.

Its importance: It provides the student with a clear idea of what he will learn . and how he will be assessed

How is it determined?are determined based on the objectives of the academic program to which the course belongs. The course outcomes

Outputs	Teaching and learning methods	Evaluation methods
ج- knowledge ١. Defines the basic concepts of general chemistry, such as: volumetric and gravimetric analyses, concentrations, acid- base reactions . ٢. Explains the properties of chemical solutions and the laws of chemical equilibrium and solubility. ٣. Distinguish between organic compounds such as alkanes , alkenes , aromatic compounds , and alcohols. ٤. Explains the basic principles of spectroscopy and analytical methods.	**Presentation**	• **Assignments and duties** • **Quiz** • **practical control** • **monthly test** **Final written exam**
B - Skills	**Active learning teamwork - - laboratory experiments.**	**Lab reports - practical assessment - monthly test -**

١. Prepares chemical solutions accurately using various .analytical tools and equipment ٢. Apply quantitative analysis processes such as gravimetric analysis and titration to determine concentrations of .compounds ٣. Spectrometers and chemical measurements are primarily .used in sample analysis ٤. Interprets analysis results based on the principles of chemical equilibrium and buffersolutions .		**final written test**
C- Values ١. Adheres to safety rules inside the chemical laboratory. ٢. Demonstrates accuracy and skill in handling chemicals and equipment. ٣. Respects the ethical rules of scientific research and analysis . ٤. Responsible for documenting and analyzing data and results objectively.	Self-learning cooperative learning Blended learning	**Behavioral Monitoring - Performance Reports - Final Evaluation**

٤٦.Course structure **(Theoretical and practical vocabulary)**

week	watches	Required learning outcomes	Unit name/topic	Teaching method	Evaluation method
the first	2	**Learn the basic tools an concepts in analytical .chemistry**	**Chemicals, Glassware Basic Processes**	**Presentation**	**Questions and discussions**

the second	2	**Accurately calculate solution concentrations**	**Concentrations: mola ، normalPPM ، percentage**	**+ Presentation Practical exercises**	**Classroom questions and discussions**
the third	2	**Understanding chemica equilibrium and solubil**	**Aqueous solutions, ،solubility chemical equilibrium**	**+ Presentation Arithmetic exercises**	**Classroom questions and discussions**
Fourth	2	**Understanding introductory concepts For weight analysis**	**Fundamentals of Gravimetric Analysis**	**+ Presentation Videos**	**Classroom questions and discussions**
Fifth	2	**Applying the steps of weighted analysis**	**Gravimetric Analysis: Principles and procedures**	**Presentation**	**Classroom questions and discussions**
Sixth	2	**Understanding the concepts of acids and bases**	**Acids and bases, pH, titration, buffer soluti**	**Interactive + experience Presentation**	**Classroom questions and discussions**
Seventh	2	**Introduction to Spectra Analysis Methods**	**Introduction to Spectroscopic Method**	**Presentation**	**Classroom**

					questions and discussions
The eighth	2	**Learn about coordinati interactions and the clic .phenomenon**	**The nature of coordination and the conditions of formatio**	**Presentation**	**Classroom questions and discussions**
Ninth	2	**Midterm exam**	**Review and test**	**review**	**Midterm exam**
tenth	2	**Understanding the structure of alkanes**	**Introduction to Organ Chemistry: Alkanes**	**+ Presentation Group activiti**	**Classroom questions and discussions**
atheisti ten	2	**Distinguishing between alkenes Alkynes**	**Alkenes Alkynes : Nomenclature and Properties**	**Presentation**	**Classroom questions and discussions**
the second ten	2	**Identifying aromatic compounds**	**Gasoline and its derivatives**	**Presentation**	**Classroom questions and discussions**
the thir ten	2	**Analysis of the structur of alcohols and ethers a thiols**	**Physical and chemical properties**	**Presentation**	**Classroom**

					questions and discussions
Fourth ten	2	**Final Exam**	**review**	**review**	**Final exam**
laboratory the first	3	**Safety rules and laboratory equipment**	**Getting to know the laboratory environme**	**Practical education**	**a report**
the second	3	**pH measurement And the detectors**	**Distinguish between types of solutions**	**practical experience**	**a report**
the third	3	**acid-base titration**	**Calculating concentrations practically**	**practical experience**	**a report**
Fourth	3	**to prepare NaCl**	**Practical preparation steps**	**Interactive experience**	**a report**
Fifth	3	**Effect of concentrations on reaction rate**	**Understanding the factors affecting reaction rate**	**practical experience**	**a report**
Sixth	3	**Barium peroxide preparation And its interaction**	**Interactive complex experience**	**practical experience**	**a report**
Seventh	3	**Calculating the percentage of water in salts**	**Hydrochloric acid analysis**	**practical experience**	**a report**

Curriculum Development Plan .١١

Continuously updating the curriculum to keep pace with developments in the :labor market (Curriculum Update Committee, Scientific Committee) such as

٧- Develop curricula that are compatible with the labor market

٨- Holding scientific seminars and conferences aimed at updating curricula

٩- **Follow up on scientific developments in the field of specialization**	
٤٧. infrastructure	
Classrooms, laboratories and worksho	**Available**
٩- Required textbooks	**Available**
١٠- Main References (Sources)	١. Fundamental of analytical chemistry: Nine edition, Skoog ٢. Fundamentals of chemistry: Fourth Edition, David E. Goldberg
س) Recommended books and references (scientific journals, .reports , etc	Fundamentals.١of Analytical Chemistry 2.Chemistry: The Central Science 3.Introduction to Organic Chemistry 4.Journal of Chemical Education 5. Analytical Chemistry
١. Electronic references, ...،websites	https://www.khanacademy.org/science/chemis

Module Information Course information			
Module Title	**Democracy and human rights**		**Module Delivery**
Module Type	**Support**		• ☒ Theory • ☒ Lecture • ☐ Lab • ☐ Tutorial • ☐ Practical • ☒ Seminar
Module Code	**NTU100**		
ECTS Credits	٢		
SWL (hr / sem)	٥٠		
Module Level	1	**Semester of Delivery**	1
Administration Department	FORE	**College**	Al- Huwayjah Polytechnic College
Module Leader	Ahmed Aomaer	**e-mail**	ihab.natiq@nahrainuniv.edu.iq
Module Leader's Acad. Title	Assistant Lecturer	**Module Leader's Qualification**	M.Sc
Module Tutor	None	**e-mail**	Email
Peer Reviewer Name	med Aomaer	**e-mail**	ihab.natiq@nahrainuniv.edu.iq
Scientific Committee Approval Date		**Version Number**	1.0

Relation with other Modules Relationship with other subjects			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents Course objectives, learning outcomes, and guiding content	
Module Aims Course objectives	The goal of studying Human Rights and Democracy is to enhance understanding and awareness of human rights issues and the basic principles of democracy. There are several key objectives for studying this course: ١. Understanding Human Rights: The study of human rights aims to introduce you to the basic concepts of human rights and their fundamental value in society. You will learn about the history and legal development of human rights and the international treaties and

	agreements related to this topic. ٢. Awareness of the basic principles of democracy: You will learn about the concept of democracy and its core values, including the rule of law, citizenship rights, and political participation. You will also learn about different systems of government and how democratic principles are applied in differentsocieties . ٣. Identify current challenges: You will learn about current challenges and issues in the field of human rights and democracy. You will examine issues related to discrimination, social justice, women's rights, minority rights, children's rights, and refugee rights, and how to address these challenges within a democraticframework . ٤. Applying concepts to practice: You will learn how to apply the concepts and principlesstudied in human rights and democracy to practical realities. You will examine the different roles of human rights organizations and democratic institutions and how they work to promote human rights and enhance democracy in societies. ٥. Develop critical and analytical skills: You will learn how to analyze issues related to human rights and democracy and evaluate the legal, ethical, and political context surrounding them. You will practice formulating strong arguments and offering constructive criticism of unfair policies and practices. By studying Human Rights and Democracy, you will gain the knowledge and understanding necessary to contribute to the promotion of human rights and democracy in society and work to create positive change.
Module Learning Outcomes **Learning outcomes for the subject**	Through the teaching of human rights and democracy, the University of Nahrain works to promote education, awareness, and training of students on the importance of active participation in aspects of public life, such as enhancing respect for the principles of general human rights, active participation in political and cultural life, and instilling values, beliefs, and attitudes that encourage all students to support their own rights and the rights of others. It also provides an understanding of the shared responsibility of this segment to make human rights a reality that they live and arm themselves with the knowledge, skills, and attitudes that enable them to realize these rights and adhere to them.
Indicative Contents Guidance contents	• Knowing the concept of right and the concept of human being from a linguistic and technical perspective, knowing the concept of human rights, studying the legal personality of human beings, and what are the characteristics of natural personality. • Knowing the historical development of the idea of human rights in ancient and medieval times and the idea of human rights in divine laws • Study of local and international human rights sources • Study human rights guarantees and know what are the constitutional, judicial and human rights guarantees in Islam. • Knowing the role of organizations in human rights at the regional and international levels

	• Study the extent of the impact of globalization on human rights • Study the concept of democracy and know its development, definition and dimensions • Study of representative democracy and knowledge of the representative system and its legal nature • Knowing the concept of election and its legal adaptation • Knowing how to organize elections, define electoral districts, electoral lists, candidates, the electoral campaign, and voting • Studying electoral systems and knowing what direct elections, .indirect elections, individual elections, and list elections are • Knowing the advantages and disadvantages of democracy

Learning and Teaching Strategies Learning and teaching strategies			
Strategies	١. POWERPOINT ٢. Report writing ٣. Online learning ٤. field visits		
Student Workload (SWL) **Student's academic load**			
Structured SWL (h/ sem) Regular student load during the semester	٣٣	**Structured SWL (h/w) Regular weekly student workload**	2.2
Unstructured SWL (h/ sem) Irregular student load during the semester	١٧	**Unstructured SWL (h/w) Irregular student study load per week**	1.1
Total SWL (h/ sem) The student's total academic load during the semester	٥٠		

Module Evaluation
Course material evaluation

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 7
	Seminar	1	10% (10)	13	LO # 5, 8 and 10
Summative assessment	Midterm Exam	2 hours	20% (20)	7	LO #1-7
	Final Exam	2 hours	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)
Theoretical weekly curriculum

Weeks	Topics covered during the semester
First week	The concept of human rights
The second week	Human rights in ancient civilizations
The third week	Human rights in divine laws and religions
Fourth week	Human rights sources
Fifth week	Human rights guarantees and means of protection
Week ٦	The role of organizations in protecting human rights
The seventh week	Globalization and human rights
The eighth week	The concept of democracy
Week ٩	Representative (parliamentary) democracy
The tenth week	The concept of election and its legal adaptation
Week eleven	Organizing the election process
The twelfth week	electoral systems
thirteenth week	Composition of the electoral body
Fourteenth week	Components and obstacles of good governance (good governance)
The fifteenth week	Advantages and disadvantages of democracy
Week ١٦	Final Exam

Learning and Teaching Resources
Learning and teaching resources

	Text	Available in the Library?

Required Texts	Maher Saleh Alawi Al-Jubouri, Human Rights, Children and Democracy, Legal Library, ٢٠٠٩	Yes
Recommended Texts	Dr. Hami D. Hanoun Khaled, Human Rights, Al-Sanhouri Library, ٢٠١٥	no
Websites		

Grading Scheme

Grading scheme

Group	Grade	Appreciation	Marks (%)	Definition
Success Group (50 - 100)	**A** - Excellent	**privilege**	90 - 100	Outstanding Performance
	B - Very Good	**very good**	80 - 89	Above average with some errors
	C – Good	**good**	70 - 79	Sound works with notable errors
	D - Satisfactory	**middle**	60 - 69	Fair but with major shortcomings
	E - Sufficient	**acceptable**	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX** – Fail	**Precipitate (in (process**	(45-49)	More work required but credit awarded
	F – Fail	**Failed**	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

English language Course Description Form

Module Information

Course information

Module Title	**English language**		**Module Delivery**
Module Type	**Support**		• ☒ **Theory** • ☐ **Lecture** • ☐ **Lab** • ☐ **Tutorial** • ☐ **Practical** • ☒ **Seminar**
Module Code	NTU101		
ECTS Credits	**2**		
SWL (hr / sem)	**50**		
Module Level	.	**Semester of Delivery**	1
Administration Department	Computer Science	**College**	Al- Huwayjah Polytechnic College
Module Leader	Sara Burhan Abdula	**e-mail**	Israa.asultani@nahrainuniv.edu.iq
Module Leader's Acad. Title	Assistant Lecturer	**Module Leader's Qualification**	MA
Module Tutor	None	**e-mail**	None

Peer Reviewer Name		**e-mail**	
Scientific Committee Approval Date		**Version Number**	1.0

Relation with other Modules **Relationship with other subjects**			
Prerequisite module	None	**Semester**	None
Co-requisites module	None	**Semester**	None

Module Aims, Learning Outcomes and Indicative Contents **Course objectives, learning outcomes, and guiding content**	
Module Aims **Course objectives**	1. Developing Basic Communication Skills: - Enable students to express themselves effectively in everyday situations. - Focus on building a foundation in speaking and listening. 2. Enhancing Reading Comprehension: - Improve students' ability to understand and interpret written texts. - Introduce strategies for effective reading comprehension. 3. Strengthening Writing Proficiency: - Develop students' writing skills across different genres (eg, essays, emails, reports). - Emphasize grammar, sentence structure, and vocabulary usage. 4. Expanding Vocabulary: - Introduce new words and phrases to broaden students' vocabulary. - Provide strategies for effective vocabulary acquisition and retention. 5. Grammar Mastery: - Ensure a solid grasp of essential grammar rules and structures. - Focus on practical application in spoken and written communication. 6. Listening Skills Development: - Improve students' ability to understand spoken English in various contexts. - Provide exposure to different accents and speaking speeds. 7. Critical Thinking through Discussions: - Encourage students to engage in discussions to develop critical thinking skills. - Promote the use of evidence and persuasive language in discussions. 8. Effective Presentation Skills: - Equip students with the skills to deliver clear and engaging presentations. - Focus on aspects such as organization, delivery, and visual aids.

Module Learning Outcomes **Learning outcomes for the subject**	1. Students will demonstrate the ability to initiate and sustain simple conversations in English. 2. Students will be able to ask and respond to basic questions related to personal information, daily activities, and immediate surroundings. 3. Students will improve exhibit reading comprehension by accurately summarizing and analyzing information from a variety of texts. 4. Students will produce well-organized written compositions with a clear introduction, body, and conclusion. 5. Students will apply correct grammar and sentence structures in spoken and written communication. 6. Students will demonstrate improved listening comprehension across a range of accents and contexts. 7. Students will actively participate in discussions, expressing and defending their opinions. 8. Students will deliver clear and organized presentations using appropriate language and visuals.
Indicative Contents Guidance contents	Basic Communication Skills: [7 hrs] • Greetings and introductions • Describing daily routines • Asking and answering simple questions Reading Comprehension: [6 hrs] • Short stories and simple narratives • Comprehension exercises with questions Writing Proficiency: [6 hrs] • Sentence structure and composition • Paragraph writing Vocabulary Expansion: [6hrs] • Everyday vocabulary • Academic vocabulary Listening Skills Development: [7 hrs] • Listening to dialogues and conversations • Podcasts and audio materials

Learning and Teaching Strategies **Learning and teaching strategies**	
Strategies	Emphasize interactive and communicative activities to engage students actively in the learning process • Design tasks that require students to use English to accomplish specific goals, fostering language use in context. • Recognize and accommodate diverse learning styles and paces within the classroom. • Incorporate authentic materials like newspaper articles, blogs, or videos to expose students to real-life language use. • Implement ongoing formative assessments, such as quizzes, peer evaluations, and class discussions, to gauge student progress. • Provide constructive feedback on both spoken and written language, and encourage students to reflect on their learning experiences • Adapt lesson plans based on the evolving needs and interests of the students, allowing for flexibility in the teaching approach

Student Workload (SWL) Student's academic load			
Structured SWL (h/ sem) **Regular student load during the semester**	32	**Structured SWL (h/w)** **Regular weekly student workload**	2.13
Unstructured SWL (h/ sem) **Irregular student load during the semester**	15	**Unstructured SWL (h/w)** **Irregular student study load per week**	1.2
Total SWL (h/ sem) **The student's total academic load during the semester**	50		

Module Evaluation Course material evaluation					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	2	15% (15)	5, 10	LO #1, 3, 5, and 6
	Assignments	2	10% (10)	4, 12	LO # 2, 4, 5 and 6
	Projects / Lab.				
	Report	1	15% (15)	11	LO #4
Summative assessment	**Midterm Exam**	2 hours	10% (10)	7	LO # 1, 3, 7, and 8
	Final Exam	2 hours	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) Theoretical weekly curriculum	
	Material Covered
Week 1	Introduction to the course, syllabus, and expectations.
Week 2	Unit One of the textbook “Hello”: Basic greetings and practice activities: counting, and identifying objects in the classroom.
Week 3	Unit One of the textbook “ Hello ”: Icebreaker activities for student interaction, simple role-playing for greetings and numbers.
Week 4	Unit Two of the textbook “Your World”: Vocabulary related to daily routines and countries’ names. Present simple tense for daily activities. Describing things using adjectives.
Week 5	Unit Three of the textbook “All About You”: Vocabulary related to professions, questions and negatives, and social expressions.
Week 6	Unit Four of the textbook “Family and Friends”: Possessive Adjectives, Possessive ('s), and (Adjective+noun) • Reading and Speaking: Vocabulary related to food and meals, Reading and understanding a simple restaurant menu. • Role-playing restaurant scenarios.

Week 7	Mid-term Exam I
Week 8	Unit Five of the textbook “The Way I Live”: Uses of definite and indefinite articles, Adjectives + nouns. - Vocabulary related to food and meals. - Languages and Nationalities
Week 9	Unit Six of the textbook “Every day”: Adverbs of frequency used with present simple tense. - Vocabulary related to travel and transportation. -Asking for and giving directions. - Role-playing travel scenarios.
Week 10	Unit Seven of the textbook “My favourites ”: Reading and writing a postcard and an e -mail to a friend. Adjectives and their opposites
Week 11	Unit Eight of the textbook “Where I live”: Vocabulary related to travel and transportation and asking for and giving directions. Introduction to prepositions (prepositions of place)
Week 12	-Writing and talking about personal interests. -Group activity: planning a class event based on shared interests.
Week 13	Vocabulary related to health and daily activities. Expressions for discussing health. Role-playing doctor-patient scenarios
Week 14	Mid-term Exam II
Week 15	**Preparatory Week**
Week 16	**Final Exam**

Delivery Plan (Weekly Lab. Syllabus) **Weekly lab schedule**	
	Material Covered
Week 1	
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	

Learning and Teaching Resources Learning and teaching resources		
	Text	**Available in the Library?**
Required Texts	- " New Headway Plus - Beginner ", John and Liz Soars, 2014.	No
Recommended Texts	- Short story "The Sound of Thunder" by Ray Bradbury	No
Websites	www.youtube.com (short videos+ chosen movies)	

Grading Scheme Grading scheme				
Group	**Grade**	Appreciation	**Marks (%)**	**Definition**
Success Group (50 - 100)	**A -** Excellent	**privilege**	90 - 100	Outstanding Performance
	B - Very Good	**very good**	80 - 89	Above average with some errors
	C - Good	**good**	70 - 79	Sound works with notable errors
	D - Satisfactory	**middle**	60 - 69	Fair but with major shortcomings
	E - Sufficient	**acceptable**	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX –** Fail	**Precipitate (in (process**	(45-49)	More work required but credit awarded
	F – Fail	**Failed**	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Life Sciences Course Description Form

Module Information Course information					
Module Title	**Biology**			**Module Delivery**	
Module Type	**Basic**			☒**Theory** ☒**Lecture** ☒**Lab** ☐ **Tutorial** ☐**Practical** ☒**Seminar**	
Module Code	TIHA101				
ECTS Credits	**7**				
SWL (hr / sem)	**175**				
Module Level	1		**Semester of Delivery**	1	
Administration Department	Forensic Science		**College**	**Al- Huwayjah Polytechnic College**	
Module Leader	Falah Hassan Youssef		**e-mail**	Orooba_alhammood@yahoo.com	
Module Leader's Acad. Title	Lecturer		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Lect. Dr. Omar Abed Kahim Ass. Lect. Muna Bahaa Al- Deen		**e-mail**		
Peer Reviewer Name	Name		**e-mail**	Email	
Scientific Committee Approval Date			**Version Number**	١,٠	

Relation with other Modules Relationship with other subjects			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents Course objectives, learning outcomes, and guiding content	
Module Aims Course objectives	١. Understand the fundamental principles and techniques of human biology. ٢. Discovery & Cells: This guide provides keys to course success and introduces the course topics, including cells. ٣. Integumentary: Skin, hair, and nails ٤. human Biology and Physiology - Tissues, organelles, reproduction and development. Extensive analytic and synthetic problem-solving capabilities . ٥. Storage of genetic information, gene expression and regulation, mitosis and meiosis, gene linkage and chromosome mapping. ٦. Sufficient scientific background to undertake research .
7 Learning outcomes for the subject	١. Demonstrate a comprehensive understanding of the principles and techniques of human biology. ٢. The Human Biology course begins with an introduction to key concepts in biology, from molecular and cellular features to the concept of evolution, including genetics and physiology. ٣. Skills training is an integral part of the course at all levels. Identify and classify various types of blood. ٤. Continuously update knowledge in the field of human biology through self-directed learning and research.
Indicative Contents Guidance contents	Indicative content includes the following. Introduction to human biology: History and milestones in the field of human biology Basic concepts of human biology and applications. A blood type (also known as a blood group) is a classification of blood, based on the presence and absence of antibodies and inherited antigenic substances on the surface of red blood cells (RBCs). These antigens may be proteins, carbohydrates, glycoproteins, or glycolipids, depending on the blood group system. DNA as the genetic material because of the apparent simplicity of its chemistry. DNA was known to be a long polymer composed of only four types of subunits, which chemically resemble one another. A DNA molecule consists of two long polynucleotide chains composed of four types of nucleotide subunits. Each of these chains is known as a DNA chain, or a DNA strand. Hydrogen bonds between the base portions of the nucleotides hold the two chains together. Chromosomes are thread-like structures present in the nucleus. They are important because they contain the basic genetic material DNA. These are present inside the nucleus of plants as well as animal cells. Chromosomes were first discovered by Strasburger in 1815 and the term 'chromosome' was first used by Waldeyer in 1888. Human beings have 46 chromosomes in their body. These are arranged into 23 pairs. “A Chromosome looks like a thread and is coiled material, made of proteins. Chromosomes are present in the nucleus of all the cells and contain the basic genetic material DNA, which passes from one generation to another.”

	Structure: A chromosome has generally 8 parts; Centromere or primary constriction or kinetochore, chromatids, chromatin, secondary constriction, telomere, chromomere, chromonema, and matrix. Centromere or Kinetochore: It is the primary constriction at the center to which the chromatids or spindle fibers are attached. Its function is to enable movement of the chromosome during the anaphase stage of cell division. Chromatid: During cell division, a chromosome is divided into 2 identical half strands joined by a centromere. Role of nanobiotechnology in availability of a wide variety of core materials as well as the unique physical and chemical properties of these nanoscale materials. Laboratory Skills: Laboratory technician skills refer to the ability to carry out specialized tasks in a laboratory setting. Laboratory technicians perform specialized scientific tests, often for technical or diagnostic purposes, for which tasks such as hypothesizing, keeping records, dissecting, pipetting, measuring and sterilizing are common. To complete these tasks and others, laboratory technicians need a combination of hard and soft skills to ensure they follow guidelines and produce accurate laboratory results.

Learning and Teaching Strategies Learning and teaching strategies	
Strategies	Type something like: The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials, and by considering types of simple experiments involving some sampling activities that are interesting to the students.

Student Workload (SWL) .The student's academic load is calculated as ١٥ weeks			
Structured SWL (h/ sem) Regular student load during the semester	93	**Structured SWL (h/w)** Regular weekly student workload	6

Unstructured SWL (h/ sem) Irregular student load during the semester	82	**Unstructured SWL (h/w)** Irregular student study load per week	5
Total SWL (h/ sem) The student's total academic load during the semester	175		

Module Evaluation

Course material evaluation

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO # 5, 8 and 10
Summative assessment	**Midterm Exam**	2 hours	10% (10)	7	LO #1-7
	Final Exam	2 hours	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

Theoretical weekly curriculum

	Material Covered
Week 1	Introduction and basic principle of human biology
Week 2	Cell: Structure, properties and classification (part 1)
Week 3	Cell: Structure, properties and classification (part2)
Week 4	Tissue: Structure, properties; classification and function(patr1)
Week 5	Tissue: Structure, properties; classification and function(part2)
Week 6	Circulatory system; Blood
Week 7	Skin and Hair
Week 8	Mid exam
Week 9	Structure and Function of DNA
Week 10	Structure and Function of DNA
Week 11	Genetic basis of DNA typing
Week 12	Human chromosomes
Week 13	Chromosome variations
Week 14	Human genetics

Week 15	Semi-lethal gene
Week 16	**Preparatory week before the final exam**

Delivery Plan (Weekly Lab. Syllabus) Weekly lab schedule	
	Material Covered
Week 1	Laboratory safety roles
Week 2	Types of microscopes and Parts of the Microscope
Week 3	Eukaryotic Cell Structure
Week 4	Organic Substances in the Cells
Week 5	Water, Acids, Bases and pH Enzymes in Living Tissues
Week 6	Mid exam
Week 7	DNA (The Foundation of Life)
Week 8	DNA Extraction and Gel Electrophoresis
Week 9	The Cell Cycle & Mitosis, Patterns of Inheritance
Week 10	Explain hematocrit, including the significance of values outside of the normal range
Week 11	Determine hematocrit from a blood sample image.
Week 12	Explain the ABO and Rh blood groups and their clinical significance.
Week 13	Identify and describe all formed elements in a human blood smear.
Week 14	State the relative proportions of formed elements in human blood
Week 15	Second Exam

Learning and Teaching Resources Learning and teaching resources		
	Text	**Available in the Library?**
Required Texts	Reference book: Johnks and lnglis (eds.) Text book of Human Biology, 3rd Ed.	No (Available as an e-book)
Recommended Texts		
Websites		

Grading Scheme Grading scheme				
Group	**Grade**	Appreciation	**Marks (%)**	**Definition**
Success Group (50 - 100)	**A** - Excellent	privilege	90 - 100	Outstanding Performance
	B - Very Good	very good	80 - 89	Above average with some errors
	C - Good	good	70 - 79	Sound works with notable errors
	D - Satisfactory	middle	60 - 69	Fair but with major shortcomings
	E - Sufficient	acceptable	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX** – Fail	Precipitate (in (process	(45-49)	More work required but credit awarded
	F – Fail	Failed	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

General Penal Code Course Description Form

Module Information Course information					
Module Title	**General Penal Code**			**Module Delivery**	
Module Type	**Core**			☒**Theory** ☐**Lecture** ☐**Lab** ☐**Tutorial** ☐**Practical** ☐**Seminar**	
Module Code	FRSC100				
ECTS Credits	**6**				
SWL (hr / sem)	**150**				
Module Level	1		**Semester of Delivery**	1	
Administration Department	MPHY		**College**	poy	
Module Leader	Dr. Raad Hamza Awad		**e-mail**	mohanad.al.sallami@kus.edu.iq	
Module Leader's Acad. Title	Lecturer		**Module Leader's Qualification**		

Module Tutor	Name (if available)	**e-mail**	Email
Peer Reviewer Name	none	**e-mail**	none
Scientific Committee Approval Date		**Version Number**	1.0

Relation with other Modules Relationship with other subjects			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents Course objectives, learning outcomes, and guiding content	
Module Aims Course objectives	**To familiarize students with the general principles and foundations of criminal law** , including types of crimes, prescribed penalties, and conditions of criminal liability, with the aim of enabling them to understand how the law is applied to crimes and ensure justice in society.
Module Learning Outcomes Learning outcomes for the subject	• **Understanding the basic principles**: the ability to interpret the basic concepts of criminal law. • **Crime discrimination**: identifying and classifying types of crimes. • **Conditions of criminal liability**: Understanding the elements necessary to file a criminal case. • **Application of penalties**: Knowing the penalties prescribed for various crimes and how to apply them. • **Legal Analysis**: The ability to analyze legal cases and make judgments based on laws.
Indicative Contents Guidance contents	• **Introduction to the Penal Code**: its definition and importance. • **Types of crimes**: criminal, civil and dishonorable. • **Criminal liability**: its conditions and types. • **Elements of the crime**: the material element and the moral element. • **Penalties**: types and rules of application. • **Criminal trials**: procedures and the rights of the accused. • **Legal defenses**: defense of non-liability and legitimate defense. • **Compensation for damages**: claims and types of compensation. • **Recent developments**: the impact of social changes and cybercrime. • **Case Studies**: Analysis of Real-Life Issues. This summary provides a brief overview of the main topics covered in the course. 20 hours

Learning and Teaching Strategies

Learning and teaching strategies

Strategies	:In this regard, we aim to do the following • **Interactive lectures**: Presentation of concepts with discussions. • **Presentations :** Students participate in presentingtopics . • **Case studies**: analysis of real-life issues. • **Group discussions**: exchange of opinions and ideas. • **Individual research**: Encouraging students to research. • **Field visits**: learning about legal work in the field. ١. • **Periodic tests**: assessing understanding and achievement.

Student Workload (SWL)

Student's academic load

Structured SWL (h/ sem) Regular student load during the semester	63	**Structured SWL (h/w)** Regular weekly student workload	4
Unstructured SWL (h/ sem) Irregular student load during the semester	87	**Unstructured SWL (h/w)** Irregular student study load per week	5.8
Total SWL (h/ sem) The student's total academic load during the semester	150		

Module Evaluation

Course material evaluation

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10 % (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10 % (10)	2, 12	LO # 3, 4, 6 and 7
	Projects / tutorial .	1	10 % (10)	Continuous	
	Report	1	10% (10)	13	LO # 5, 8 and 10
Summative assessment	**Midterm Exam**	1 hour	10 % (10)	7	LO #1-7
	Final Exam	2 hours	5 0% (5 0)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

Theoretical weekly curriculum

	Material Covered
Week 1	• **Week ١**: Introduction to Criminal Law.
Week 2	• **Week ٢**: Types of crimes.
Week 3	• **Week ٣**: Elements of crime.
Week 4	• **Week ٤**: Criminal Responsibility.
Week 5	• **Week ٥**: Sanctions: Types and Purposes.
Week 6	• **Week ٦**: Legal Defenses.
Week 7	• **Week ٧**: Criminal Procedure.
Week 8	• **Week ٨**: Rights of the accused.
Week 9	• **Week ٩**: Compensation for damages.
Week 10	• **Week ١٠**: Honor crimes.
Week 11	• **Week ١١**: Economic crimes.
Week 12	• **Week ١٢**: Cybercrimes.
Week 13	• **Week ١٣**: Issue Analysis: Case Studies.
Week 14	• **Week ١٤**: Legal Updates.
Week 1 ٥	• **Week ١٥**: Comprehensive review and final exam.

Learning and Teaching Resources

Learning and teaching resources

	Text	Available in the Library?
Required Texts	Book/General Penal Code D. Suhail Hassan Masoud	Yes
Recommended Texts	Book / Crimes and their types Dr. Falah Hassan Al-Sayed	No
Websites		

Grading Scheme

Grading scheme

Group	Grade	Appreciation	Marks (%)	Definition
Success Group (50 - 100)	**A** - Excellent	privilege	90 - 100	Outstanding Performance
	B - Very Good	very good	80 - 89	Above average with some errors
	C - Good	good	70 - 79	Sound works with notable errors
	D - Satisfactory	middle	60 - 69	Fair but with major shortcomings
	E - Sufficient	acceptable	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX** – Fail	Precipitate (in (process	(45-49)	More work required but credit awarded
	F – Fail	Failed	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Criminology Course Description Form

Module Information

Course information

Module Title	**Criminology**	**Module Delivery**	
Module Type	**Core**	☒**Theory** ☒**Lecture** ☒**Lab** ☐**Tutorial** ☐**Practical** ☐**Seminar**	
Module Code	FRSC102		
ECTS Credits	٦		
SWL (hr / sem)	١٥٠		
Module Level	1	**Semester of Delivery**	2
Administration Department	FORN	**College**	
Module Leader		**e-mail**	Email
Module Leader's Acad. Title		**Module Leader's Qualification**	
Module Tutor	Name (if available)	**e-mail**	Email
Peer Reviewer Name	Name	**e-mail**	Email
Scientific Committee Approval Date		**Version Number**	1.0

Relation with other Modules

Relationship with other subjects

Prerequisite module	none	**Semester**	2/1
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents Course objectives, learning outcomes, and guiding content	
• Understand the theoretical foundations of criminology and study the causes of crime. • Analysis of different criminal patterns and associated phenomena. • Understanding the impact of social, psychological and economic factors on criminal behavior. • Identify crime prevention mechanisms and punishment methods. • Study the role of legal and security institutions in combating crime.	**Module Aims** Course objectives
• The ability to analyze the causes and patterns of various crimes. • Understanding the relationship between social and psychological factors and criminal behavior. • Evaluating the effectiveness of preventive measures and punitive policies. • Developing research and analysis skills in crime cases. • Understanding the role of legal institutions in combating crime and achieving justice	**Module Learning Outcomes** Learning outcomes for the subject
• Introduction to Criminology. • Types of crimes. • Causes of crime. • Theories of crime explanation. • Crime prevention. • The role of legal institutions.	**Indicative Contents** Guidance contents

Learning and Teaching Strategies Learning and teaching strategies	
Strategies	• For **interactive lectures**: to explain basic concepts and theories. • **Group discussions**: to promote critical thinking and analysis of crime issues. • **Case studies**: to understand the practical applications of criminological theories. • **Research and articles**: to develop research and analysis skills. • **Field visits**: to see the work of legal institutions. • **Presentations**: To develop presentation and communication skills

Student Workload (SWL) Student's academic load			
4	**Structured SWL (h/w)** Regular weekly student workload	63	**Structured SWL (h/ sem)** Regular student load during the

			semester
5.8	**Unstructured SWL (h/w)** Irregular student study load per week	87	**Unstructured SWL (h/ sem)** Irregular student load during the semester
150			**Total SWL (h/ sem)** The student's total academic load during the semester

Module Evaluation

Course material evaluation

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10 % (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10 % (10)	2, 12	LO # 3, 4, 6 and 7
	Projects / Lab.	1	10 % (10)	Continuous	
	Report	1	10% (10)	13	LO # 5, 8 and 10
Summative assessment	**Midterm Exam**	2 hours	10 % (10)	7	LO #1-7
	Final Exam	2 hours	5 0% (5 0)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

Theoretical weekly curriculum

	Material Covered
Week 1	Week ١: Introduction to Criminology.
Week 2	Week ٢: Types of crimes.
Week 3	Week ٣: Classical Theories of Crime.
Week 4-5	Week ٤: Biological and Psychological Theories.
Week 6	Week ٥: Social and Environmental Theories.
Week 7	Week ٦: Factors affecting criminal behavior.
Week 8	Week ٧: Crime Prevention Strategies.
Week 9	Week ٨: The role of police and institutions in prevention.
Week 10	Week ٩: Sanctions and Rehabilitation.
Week 11	Week ١٠: Organized Crime and Terrorism.
Week 12	Week ١١: Cybercrimes.
Week 12-13	Week ١٢: The role of legal institutions.
Week 14	Week ١٣: Criminal Case Studies.
Week 15	Week ١٤: Scientific Research in Criminology.
Week 16	Week ١٥: Review and Evaluation.

Learning and Teaching Resources

Learning and teaching resources

	Text	Available in the Library?
Required Texts	Cook, T. Hill, M. and Hibbitt, S. (2016) Blackstone's Crime Investigator's Handbook. Oxford: Oxford University Press.	Yes
Recommended Texts	Beaufort- Moore, D. (2015) Crime Scene Management and Evidence Recovery, 2nd Edition. Oxford: Oxford University Press	No
Websites	Self html (the English version is still (early 2005) in its infancy at: http://www.selfhtml.org/	

Grading Scheme

Grading scheme

Group	Grade	Appreciation	Marks (%)	Definition
Success Group (50 - 100)	**A** - Excellent	privilege	90 - 100	Outstanding Performance
	B - Very Good	very good	80 - 89	Above average with some errors
	C - Good	good	70 - 79	Sound works with notable errors
	D - Satisfactory	middle	60 - 69	Fair but with major shortcomings
	E - Sufficient	acceptable	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX** – Fail	Precipitate (in (process	(45-49)	More work required but credit awarded
	F – Fail	Failed	(0-44)	Considerable amount of work required

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Course Description Template Hardware Technologies

Module Information

Course information

Module Title	**Laboratory Instrument & Techniques**	Module Delivery

Module Type	**CORE**	☒**Theory** ☒**Lecture** ☒**Lab** ☐**Tutorial** ☐**Practical** ☐**Seminar**
Module Code	TIHA101	
ECTS Credits	**6**	
SWL (hr / sem)	**175**	

Module Level	1	**Semester of Delivery**	1
Administration Department	Type Dept. Code	**College**	poly
Module Leader	FADLA S. AZIZ	**e-mail**	asmaa.mansoor@kus.edu.iq
Module Leader's Acad. Title	Professor	**Module Leader's Qualification**	Ph.D.
Module Tutor	Name (if available)	**e-mail**	Email
Peer Reviewer Name	As maa Mansour	**e-mail**	asmaa.mansoor@kus.edu.iq
Scientific Committee Approval Date		**Version Number**	1.0

Relation with other Modules

Relationship with other subjects

Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents

Course objectives, learning outcomes, and guiding content

Module Aims Course objectives	This module aims to introduce students to Microscope and types, the spectroscopic and chromatographic techniques, Electrophoresis, Balance, Temperature control instrument, PCR & RT-PCR and provide them with hands-on experience of laboratory instrumental analysis, further developing the practical skills gained in the Laboratory Chemical & Biological module. This module also aims to provide training to the students on the research methodology and skills, *eg* . Literature survey, experimental design, data acquisition, result analysis and report writing-up, which will pave the way for their final year research project.
Module Learning Outcomes Learning outcomes for the subject	Knowledge and Understanding: Formulate experimental methods for all instrument and design appropriate experimental set-ups. Demonstrate the sample preparation and operational skills using the advanced all this instrument.

	Acquire and critically assess experimental results with comparison to standards or databases . Transferable/Key Skills and other attributes: • Safe-working laboratory practices • Observation, recording and presenting complex scientific data • Numeracy, literacy, IT and information management • Time management • Problem solving skills • Literature search, data processing and academic writing skills • Team working
Indicative Contents Guidance contents	Indicative content includes the following. <u>Part A - primary information of laboratory instrument & techniques</u> On completion of this module, students are expected to be able to: 1 Demonstrate knowledge of introduction of instrument & types 2 Demonstrate knowledge of the principle & application & types of instrument. 3 Demonstrate an understanding of Microscope. [15 hrs] 4 Demonstrate understanding of the Electron Microscope. [15 hrs] Balance, Temperature control instrument (Incubator, Water bath, Autoclave, Hot air oven, Hotplate Magenetic Stirrer) and types . [16 h] PCR & RT- PCR, Electrophoresis, chromatography, pHmeter , Ultrasonic, Centrifuge. [15 hrs] <u>Part B - essentials and details</u> Fundamentals To publicize the key learning resources that are important or essential for those studying the module or to demonstrate the academic foundation of the module. To provide a short list, indicating the type and level of information that students are expected to consult. Further, in depth, guidance and a comprehensive list of reading and resources should be made available . [15 hrs] Normally a short list of books or articles in reference format (author, date, title, and publisher). If a core text or textbook exists, this should be indicated. Lists should be indicative, rather than a full bibliography. . [7 hrs] To identify where the whole module may be taken by students at a distance, either by arrangement with the Program Director or because it forms part of a program that is wholly or partly delivered virtually. If distance learning is possible, a second module descriptor will need to be created, to identify learning, teaching, assessment and contact methods/support for students in the distance learning version of the module. . [15 hrs]

Learning and Teaching Strategies Learning and teaching strategies	
Strategies	To describe the learning activities of the students and the teaching methods of the staff. Effective module

	design should result in a varied range of active learning experiences for students, including learning activities which are 'research-like'. Activities should, of course, motivate and encourage deep learning (reflection on wider meanings, rather than superficial memorisation of information). They should also be varied and flexible enough to accommodate different learning styles and orientations, and allow for inclusivity of students from different backgrounds and with different kinds of learning abilities. Learning activities therefore need to include reference to independent, interdependent (peer-supported) and online activities, as well as participation in different types of taught class.

Student Workload (SWL)

Student's academic load

Structured SWL (h/ sem) Regular student load during the semester	63	**Structured SWL (h/w)** Regular weekly student workload	4
Unstructured SWL (h/ sem) Irregular student load during the semester	112	**Unstructured SWL (h/w)** Irregular student study load per week	7.5
Total SWL (h/ sem) The student's total academic load during the semester	175		

Module Evaluation

Course material evaluation

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10 % (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10 % (10)	2, 12	LO # 3, 4, 6 and 7
	Projects / Lab.	1	10 % (10)	Continuous	
	Report	1	10% (10)	13	LO # 5, 8 and 10
Summative assessment	**Midterm Exam**	2 hours	10 % (10)	7	LO #1-7
	Final Exam	2 hours	5 0% (5 0)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

Theoretical weekly curriculum

	Material Covered
Week 1	Introduction to instrument
Week 2	Microscope, light microscope and electron microscope
Week 3	Balance, Temperature control instrument (Incubator, Water bath) and types.
Week 4	Temperature control instrument (Autoclave, Hot air oven, Hotplate Magenetic Stirrer) and types.
Week 5	Polymerase chain reaction (PCR)
Week 6	Exam Mid-term Exam
Week 7	Real-time polymerase chain reaction
Week 8	Electrophoresis
Week 9	Spectrophotometer
Week 10	Laboratory Centrifuge (principle, types & application).
Week 11	Chromatography (principle, types & application).
Week 12	Ultrasonic (principle, types & application).
Week 13	PHmeter (principle, types & application).
Week 14	HPLC
Week 15	EXAM
Week 16	**Preparatory week before the final exam**

Delivery Plan (Weekly Lab. Syllabus)

Weekly lab schedule

	Material Covered
Week 1	Lab 1: Introduction of instrument
Week 2	Lab 2: Microscope, light microscope and electron microscope (particle application on use instrument).
Week 3	Lab 3: Balance, Temperature control instrument (Incubator, Water bath) and types. (particle application on use instrument).
Week 4	Lab 4: Temperature control instrument (Autoclave, Hot air oven, Hot plate Magenetic stirrer) and types. (particle application on use instrument).
Week 5	Lab 5: Polymerase chain reaction (PCR) (particle application on use instrument).
Week 6	Exam Mid -term Exam (particle application on use instrument).
Week 7	Lab 6: Real-Time polymerase chain reaction (particle application on use instrument).
Week 8	Lab 7: Electrophoresis (particle application on use instrument).
Week 9	Lab 8: Spectrophotometey (particle application on use instrument).
Week 10	Lab 9: Laboratory Centrifuge (principle, types & application). (particle application on use instrument).
Week 11	Lab 10: Chromatography (principle, types & application). (particle application on use instrument).
Week 12	Lab 11: Ultrasonic (principle, types & application). (particle application on use instrument).
Week 13	Lab 12: PHmeter (principle, types & application). (particle application on use instrument).

Week 14	Lab 113: HPLC (principle, types & application). (particle application on use instrument).
Week 15	Exam

Learning and Teaching Resources

Learning and teaching resources

	Text	Available in the Library?
Required Texts	FReece J, Urry L, Cain M, Wasserman S, Minorsky P, Jackson, R. (Eds) 9th Global Edition, 2011, Campbell Biology, Pearson Benjamin Cummings.	Yes
Recommended Texts	Lobban CS (1992) *Successful Lab Reports: A Manual for Science Students*, Cambridge University Press. Higson, S.P.J. (2003) *Analytical Chemistry* , Oxford University Press. Skoog, DA, Holler, FJ and Nieman, TA (1998) *Principles of instrumental analysis* , Orlando: Harcourt Brace College Publishers. Mathew Folaranmi Olaniyan (2017) **LECTURE NOTES ON LABORATORY INSTRUCTION AND TECHNIQUES .** Edition: 1 ST Editor: ACHIEVERS UNIVERSITY, OWO-NIGERIA/DR AA OLADELE(READER) ISBN: ACHIEVERS UNIVERSITY, OWO-NIGERIA	No
Websites	Mathew Olaniyan | Professor | PhD; Cert. in Immunology: PGDE; FMLSCN; FWAPCMLS in Immunology | Medical Laboratory Science/School of Postgraduate Studies | Research profile (researchgate.net)	

Grading Scheme

Grading scheme

Group	Grade	Appreciation	Marks (%)	Definition
Success Group (50 - 100)	**A** - Excellent	privilege	90 - 100	Outstanding Performance
	B - Very Good	very good	80 - 89	Above average with some errors
	C - Good	good	70 - 79	Sound works with notable errors
	D - Satisfactory	middle	60 - 69	Fair but with major shortcomings
	E - Sufficient	acceptable	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX** – Fail	Precipitate (in (process	(45-49)	More work required but credit awarded
	F – Fail	Failed	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Computer Course Description Form

Module Information

Course information

Module Title	**Basic Computer Science**	**Module Delivery**	
Module Type	**support**		☒**Theory** ☒**Lecture** ☒**Lab** ☐**Tutorial** ☒**Practical** ☒**Seminar**
Module Code	NTU102		
ECTS Credits	**3**		
SWL (hr / sem)	**75**		

Module Level	First	**Semester of Delivery**	2
Administration Department	FOR	**College**	poly
Module Leader	Dr. FAHAD AHMED	**e-mail**	daar63@kus.edu.iq
Module Leader's Acad. Title	Assistant Professor	**Module Leader's Qualification**	Ph.D.
Module Tutor	Lecturer: Osama Mohammed	**e-mail**	osama20111989@kus.edu.iq
Peer Reviewer Name	Name	**e-mail**	Email
Scientific Committee Approval Date		**Version Number**	1.0

Relation with other Modules

Relationship with other subjects

Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents Course objectives, learning outcomes, and guiding content	
Module Aims Course objectives	The computer course includes, on the theoretical side, the basics of computers, as well as a brief historical summary of the development and generations of computers. It also covers different computer types. There is a detailed explanation of computer components (hardware and software), along with an introduction to number systems (decimal and binary) from the student's perspective. Furthermore, the course provides a manual for operating MATLAB, presenting its code capabilities required for general programming. On the practical side, students are taught ready-made basic programs that include Microsoft Office and the Windows operating system. The course includes practical hours, with the main goal being the student's mastery in using the calculator as an essential tool.
Module Learning Outcomes Learning outcomes for the subject	The learning outcomes of studying medical image analysis include : ١. Defining computer components (hardware and software) to the students. ٢. Explaining input and output devices to the students. ٣. Enabling students to recognize different types of memory. ٤. Teaching students about number systems and how to convert between decimal and binary. ٥. Providing the student with cognitive skills from the basic concepts of programming language and enables them to the skills to run the MATLAB programand deal with the MATLAB windows and all the types of Statements . ٦. Enables students to understand and run all Statements (Loop, Control, Branch), reading and writing data file. ٧. Providing the student with cognitive skills to deal with operations with Arrays or Matrices. ٨. Providing hands-on experience with basic programs, including Microsoft Office and the Windows operating system, to students.
Indicative Contents Guidance contents	Indicative content includes the following. <u>Part A</u> Introduction to Computer, Definition of Computer, Computer History, Generations of Computers, Categories of Computer, Computer Components, Software. [8 hrs] <u>Part B</u> Computer Components, Hardware, Input Devices, Output Devices, Components of the System Unit, Central Processing Unit (CPU), Memory .[10 hrs] <u>Part C</u> Hardware, Cache Memory, Primary, Memory (Main Memory) ،Random Access Memory, Read Only Memory, Secondary Memory, Memory Units, Storage Devices. [10 hrs] <u>Part D</u> Numbers Systems, Decimal Number System, Binary Number System, Convert Decimal to Binary System, Numbers Systems, Convert Binary to Decimal System. [8 hrs]

	Part E Defining Internet and Intranet, Types of Computer Network, Computer network. [5 hrs] Part F MATLAB Windows: Window layout, Command Windows, History Window, WorkspaceWindow , Editor Window, Figure Window, General MATLAB Code: Types of Statements, Rules for Statement Editing, ArithmeticStatement . Constant Value, Variables , Numerical. Variable, Logical Variable, Character Variable . [6 hrs] Part G Arrays and Matrices: Index Concept Numerical Arrays and Matrices, Operations on one, Arrays orMatrices , N-Dimension Matrices, Logical Arrays, character and String Variables, Operators, Expression, Loop Statement, Control Statement, Branch Statement, reading andwriting data file. [7 hours] Part H Plotting Plotting Elementary Function- :[6 hrs]

Learning and Teaching Strategies Learning and teaching strategies	
Strategies	In order to enable students to learn computer skills effectively and programming using MATLAB, here are some strategies that can be employed : ١. Provide hands-on activities: Incorporate hands-on activities, projects, and exercises to engage students actively in the learning process. Practical application of concepts helps students understand how computers work and reinforces their understanding. ٢. By using visual aids and interactive resources: Utilize visual aids, diagrams, charts , and interactive resources like educational software, simulations, and coding platforms to make abstract concepts more tangible and engaging. ٣. Foster a collaborative learning environment: Encourage students to work in teams or pairs on projects or coding exercises. Collaborative learning allows students to share ideas, help one another, and learn from different perspectives . ٤. Personalize the learning experience: Recognize that students have different learning styles and paces. Provide opportunities for individualized learning, allowing students to progress at their own speed and explore topics of interest to them. Tailor the learning experience to accommodate diverse learning needs. ٥. Encourage exploration and experimentation: Encourage students to explore and experiment with different programming languages, tools, and technologies . Let them pursue their own coding projects and interests. This fosters curiosity and self-directed learning. ٦. Connect with real-world applications: Demonstrate how computer skills are applied in various fields and industries. Show examples of how coding is used in creating websites, mobile apps, robotics, or data analysis. Connecting computer skills to real-world applications can motivate students and help them understand the practical significance of what they are learning . ٧. Through updated with technology trends: Stay abreast of the latest technology trends, tools, and programming languages. Integrate relevant and up-to-date content into the curriculum to ensure students are learning skills that are in demand in the job market.

	It is important to create a supportive and inclusive learning environment where students feel encouraged to ask questions, take risks, and explore their interests. By implementing these strategies, we can help students develop a solid foundation in computer skills and foster their passion for technology.

Student Workload (SWL)

Student's academic load

Structured SWL (h/ sem) Regular student load during the semester	48	**Structured SWL (h/w)** Regular weekly student workload	3.2
Unstructured SWL (h/ sem) Irregular student load during the semester	27	**Unstructured SWL (h/w)** Irregular student study load per week	1.8
Total SWL (h/ sem) The student's total academic load during the semester	75		

Module Evaluation

Course material evaluation

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	5 % (5)	6, 13	LO # 2,3,4,5,11 and 12
	Assignments	2	10 % (10)	9, 15	LO # 6, 7, 8, 13 and 14
	Projects / Lab.	1	20 % (20)		
	Report	1	5% (5)	11, 16	LO # 1,9,10 and 15
Summative assessment	**Midterm Exam**	2 hours	10 % (10)	9	LO #1-8
	Final Exam	2 hours	5 0% (5 0)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

Theoretical weekly curriculum

	Material Covered
Week 1	Introduction to Computer, Definition of Computer, Computer History, Generations of Computers ,
Week 2	Categories of Computer .
Week 3	Computer Components, Software
Week 4	Computer Components, Hardware, Input Devices, Output Devices.
Week 5	Components of the System Unit, Central Processing Unit (CPU), Memory
Week 6	Hardware, Cache Memory, Primary, Memory (Main Memory) ،Random Access Memory, Read Only

	Memory, Secondary Memory, Memory Units, Storage Devices
Week 7	Numbers Systems, Decimal Number System, Binary Number System,
Week 8	Numbers Systems, Convert Decimal to Binary System, Numbers Systems, Convert Binary to Decimal System, Examples
Week 9	Defining Internet and Intranet
Week 10	Types of Computer Network, Computer network
Week 11	MATLAB Windows: Window layout, Command Windows, History Window, Workspace Window , Editor Window, Figure Window.
Week 12	General MATLAB Code: Types of Statements, Rules for Statement Editing, Arithmetic Statement . Constant Value, Variables , Numerical. Variable, Logical Variable, Character Variable.
Week 13	Arrays and Matrices: Index Concept Numerical Arrays and Matrices, Operations on one Arrays or .Matrices , N-Dimension Matrices, Logical Arrays, character and String Variables
Week 14	Operators, Expression, Loop Statement, Control Statement, Branch Statement, reading and writing data file.
Week 15	Plotting -Plotting Elementary Function :
Week 16	**Preparatory week before the final exam**

Delivery Plan (Weekly Lab. Syllabus)

Weekly lab schedule

	Material Covered
Week 1	Lab 1: Windows 10: An introduction to windows 10, The start menu, Notification pane and action .center, Cortana, Microsoft edge, Use multiple desktops, Tablet mode, The settings App
Week 2	Lab 2: Microsoft word 2016: An introduction to Microsoft Word 2016, Starting Word, The Home Ribbon, The Insert Ribbon, Adding Tables, Headers and Footers, Inserting Headers & Footers, Editing Headers & Footers .
Week 3	Lab 3: Page Numbering: The Design Ribbon (Page Borders, Page Color, Watermarks, Page Numbering : The Page Layout Ribbon, Page Setup, The References Ribbon, The MailingsRibbon , The Format Ribbon, File Backstage, Saving Documents, Saving as a DifferentFormat , Opening Saved ،Documents Printing Documents.
Week 4	Lab 4: Microsoft Excel 2016: An introduction to Microsoft Excel 2016, Starting Excel, The Home Ribbon, The Insert Ribbon, The Page Layout Ribbon, The Formulas Ribbon, The Data Ribbon , The Review Ribbon, The View Ribbon, File Backstage, Introduction to a Spreadsheet, Entering Data.
Week 5	Lab 5: Simple Text Formatting, Text Orientation, Resizing Rows and Columns, inserting Rows & Columns, Cut, Copy & Poste, Sorting Data, Formatting Spreadsheet, Cell Alignment, Text Format , Cell Borders, Using Formulas, Using Functions, Count, Count IF, Auto Sum, Average, Max & Min, lF Function, Adding Charts, Change Chart Type.
Week 6	Lab 6: MATLAB Windows, example of Constant Value, Variables , Numerical. Variable, Logical Variable , Character Variable, Examples of Arrays and Matrices
Week 7	Lab 7: Examples of Expression, Loop Statement, Control Statement, Branch Statement , reading and writing data file, Examples of Plotting.

Learning and Teaching Resources

Learning and teaching resources

	Text	**Available in the Library?**
Required Texts	١- Ata Elahi, “Computer Systems, Digital Design, Fundamentals of Computer, Architecture and Assembly Language”, Springer International Publishing AG 2018. ٢- Peter Norton "Introduction to Computers", sixth edition, 2008, ISBN- 13 :978-0-07-059374- 9 .	Yes

	٣- B. Hemanta, Computer Fundamental, Stratford College London, pp.1-20 . ٤- R Mansfield, "Mastering VBA for Microsoft Office", 2019, 944 Pages. ٥- Matlab : Numerical Computing, Tutorials .point , ٢٠١٤	
Recommended Texts	١- Steven Freund, Gary B. Shelly, Thomas J. Cashman, Misty Vermaat, Introduction to Computers, Eighth Edition, 2012, ISBN10 143908131X, ISBN13 9781439081310	No
Websites		

Grading Scheme

Grading scheme

Group	Grade	Appreciation	Marks (%)	Definition
Success Group (50 - 100)	**A** - Excellent	privilege	90 - 100	Outstanding Performance
	B - Very Good	very good	80 - 89	Above average with some errors
	C - Good	good	70 - 79	Sound works with notable errors
	D - Satisfactory	middle	60 - 69	Fair but with major shortcomings
	E - Sufficient	acceptable	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX** – Fail	Precipitate (in (process	(45-49)	More work required but credit awarded
	F – Fail	Failed	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone “near-pass fails” so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Module Information

Course information			
Module Title	Chemistry		**Module Delivery**
Module Type	Basic		• ☒ **Theory** • ☒ **Lecture** • ☒ **Lab** • ☐ **Tutorial** • ☐ **Practical** • ☐ **Seminar**
Module Code	TIHA101		
ECTS Credits	8		
SWL (hr / sem)	200		
Module Level	1	**Semester of Delivery**	2
Administration Department	Forensic Science	**College**	**Al- Huwayjah Polytechnic College**
Module Leader	Fadila Salman	**e-mail**	mustafa.abdallh@nahrainuniv.edu.iq
Module Leader's Acad. Title	Assistant Professor	**Module Leader's Qualification**	Ph.D.
Module Tutor	Ass. Prof. Dr. Dalia Mahmood Jamil Lect. Dr. Athraa Gazi Abdul Razzak	**e-mail**	
Peer Reviewer Name		**e-mail**	
Scientific Committee Approval Date		**Version Number**	1.0

Relation with other Modules Relationship with other subjects			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents Course objectives, learning outcomes, and guiding content	
Module Aims	

Course objectives	The primary objective of this course is to acquire basic concepts, principles, and techniques of modern analytical chemistry that would empower students with an analytical mind set and the abilities to solve diverse analytical problems in an efficient and quantitative way that conveys the importance of accuracy and precision of the analytical results. On successful completion of this course, students will be able: 1. T o develop an understanding of the range and uses of analytical methods in chemistry. 2. T o establish an appreciation of the role of chemistry in quantitative analysis 3. T o develop an understanding of the broad role of the chemistry in measurement and problem solving for analytical tasks. 4. T o provide an understanding of chemical methods employed for elemental and compound analysis. 5. T o provide experience in some scientific methods employed in analytical chemistry. 6. T o develop some understanding of the professional and safety responsibilities responsible in working on chemical analysis.
Module Learning Outcomes **Learning outcomes for the subject**	After attending t his course in Analytical Chemistry, **t** he students have to be able to develop a basic knowledge of main principles of analytical methods as follows - To understand qualitative and quantitative properties of solutions, understanding all kinds of analytical concentrations. - To describe and explain chemical equilibriums of acid base reactions - To know basic definitions, properties and nomenclature of alkan , alkenes, alcohol etc. - Understanding the principles of gravimetric and spectrochemical methods - Understanding the acid/base reactions and titration methods Effectively teach practical science through the context of analytical chemistry

	Design problem solving activities to challenge student understanding of analytical chemistry Understanding the safe handling of chemicals and the principles of apparatus and unit operation in analytical chemistry .
Indicative Contents Guidance contents	

Learning and Teaching Strategies **Learning and teaching strategies**	
Strategies	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises presented during the class, home works and quizzes. Furthermore, encourage the student participation in panel discussion.

Student Workload (SWL) **Student's academic load**			
Structured SWL (h/ sem) **Regular student load during the semester**	108	**Structured SWL (h/w)** **Regular weekly student workload**	7
Unstructured SWL (h/ sem) **Irregular student load during the semester**	92	**Unstructured SWL (h/w)** **Irregular student study load per week**	6
Total SWL (h/ sem) **The student's total academic load during the semester**	200		

Module Evaluation **Course material evaluation**					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 7
Summative assessment	**Midterm Exam**	2 hours	30% (10)	7	LO #1-7
	Final Exam	2 hours	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) Theoretical weekly curriculum	
	Material Covered
Week 1	Chemicals, Apparatus, and Unit Operations of Analytical Chemistry
Week 2	Concentrations of solutions: molarity, normality, part per million and percentage
Week 3	Aqueous solutions : solution and Chemical Equilibria
Week 4	
Week 5	Gravimetric method of analysis
Week 6	Acid and Bases : pH buffer acid-base and titration
Week 7	Introduction to Spectrochemical Methods
Week 8	The nature of chelation : Equilibria in solution of chelating ligands. Conditions for chelation.
Week 9	Med exam
Week 10	Organic Chemistry: Alkanes
Week 11	Alkenes and Alkynes, Nomenclature of Alkenes and Alkynes
Week 12	Aromatic compounds: Nomenclature of Benzene Derivatives
Week 13	Structure and Properties of Alcohols: Ethers: Thiols
Week 14	Final exam
Week 15	Final exam
Week 16	**Preparatory week before the final exam**

Delivery Plan (Weekly Lab. Syllabus) Weekly lab schedule	
	Material Covered
Week 1	Lab 1: Safety rules and laboratory equipment
Week 2	Lab 2: PH and indicators
Week 3	Lab 3: Acid base titration
Week 4	Lab 4: Preparation of sodium hydroxide
Week 5	Lab 5: Effect of concentration on reaction rate
Week 6	Lab 6: Preparation and reaction of barium peroxide
Week 7	Lab 7: Calculation the percentage of water in hydrated salt

Learning and Teaching Resources Learning and teaching resources		
	Text	**Available in the Library?**
Required Texts	٣. Fundamental of analytical chemistry: Nine edition, Skoog	Yes
Recommended Texts	Fundamentals of chemistry: Fourth Edition, David E. Goldberg	No
Websites	Different websites	

Grading Scheme Grading scheme				
Group	**Grade**	Appreciation	**Marks (%)**	**Definition**
Success Group (50 - 100)	**A -** Excellent	**privilege**	90 - 100	Outstanding Performance
	B - Very Good	**very good**	80 - 89	Above average with some errors
	C - Good	**good**	70 - 79	Sound works with notable errors
	D - Satisfactory	**middle**	60 - 69	Fair but with major shortcomings
	E - Sufficient	**acceptable**	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX –** Fail	**Precipitate (in (process**	(45-49)	More work required but credit awarded
	F – Fail	**Failed**	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone “near-pass fails” so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

crime scene Course Description Form

Module Information Course information			
Module Title	**crime scene**	**Module Delivery**	
Module Type	**Core**	☒**Theory** ☒**Lecture** ☒**Lab** ☐**Tutorial** ☐**Practical** ☐**Seminar**	
Module Code	FRSC104		
ECTS Credits	٤		
SWL (hr / sem)	١٠٠		
Module Level	1	**Semester of Delivery**	2
Administration Department	FORN	**College**	
Module Leader		**e-mail**	Email
Module Leader's Acad. Title		**Module Leader's Qualification**	
Module Tutor	Name (if available)	**e-mail**	Email

Peer Reviewer Name	Name	**e-mail**	Email
Scientific Committee Approval Date		**Version Number**	1.0

Relation with other Modules Relationship with other subjects			
Prerequisite module	none	**Semester**	2/1
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents Course objectives, learning outcomes, and guiding content	
Module Aims Course objectives	Upon completion of this module, the student can: 1-Explain the key theories and approaches of Crime Science. differentiate the (classical) sociological-criminological approach from modern Crime Science. 2-apply the Crime Science mind-set to real-life crime and security problems. 3-critically reflect upon crime prevention and security policymaking. 4-Formulate a response strategy to security and crime problems. 5-long-standing analysis as well as pressing future issues in crime prevention and detection. 6-Upon completion of this module, the student can: 7-Explain the key theories and approaches of Crime Science. 8-differentiate the (classical) sociological-criminological approach from modern Crime Science. 9-apply the Crime Science mind-set to real-life crime and security problems. 10-critically reflect upon crime prevention and security policymaking. 11-formulate a response strategy to security and crime problems. 12-long-standing analysis as well as pressing future issues in crime prevention and detection.
Module Learning Outcomes Learning outcomes for the subject	On successfully completing the module you will be able to... 1. Describe in some detail and discuss the cellular and molecular basis of inheritance 2. Explain the differences between acquired, monogenic, polygenic and epigenetic disease 3. Explain the different mechanisms by which genes are regulated in

	humans 4. Discuss the contribution of genetics and environment to disease processes in humans 5. Show awareness of, and discuss the ethical issues in modern genetics 6. Discuss with examples the importance of interaction between patients, scientists and clinicians
Indicative Contents Guidance contents	Lectures: [6 h] Introduction to Forensic Science, Crime Scene to Court Process. Scenes of Crime: The role of crime scene investigators in the preservation, recovery and recording of evidence at the scene of crime and evaluation of crime scene evidence. Overview of Forensic Science in the UK: Police Forces Scientific Support in relation to other Forensic Agencies. Overview of physical evidence including DNA, Toxicology, footwear and tool marks, finger-marks . Introduction to forensic evidence associated with arson, explosions and firearms. Courts and their structure. Giving expert testimony; evidence-in-chief and cross-examination. Admissibility of forensic evidence in Court: differences between UK and USA. Writing of laboratory reports and expert witness statements. Health and safety issues at scenes and in forensic examination. Thus: the main inductive contents include: [4h for each part] 1-The importance of a crime scene and of material evidence in criminal proceedings 2-The role of the court-appointed expert in criminal proceedings 3- Forms of evidence, kinds of traces and methods of analysis 4-Searching for and securing evidence and case study 5-Searching for and recovering evidence that is accepted in court 6- Independent analysis and documentation of this evidence 7- Defense and discussion of the results. 8-Computer systems and IT/computing science Internet, WWW, HTML Calculations based on spreadsheet programs Basics of programming. 9-The students provide evidence of active participation in the tutorial relating to the lecture by solving exercises in class and/or by taking a written test at the end of the semester.

Learning and Teaching Strategies

Learning and teaching strategies

Strategies	Students will attend formal timetabled lectures throughout the module. There will be class discussions and the opportunity to share information, and develop good communication skills. Students will visit a series of simulated crime scenes, where they will gain practical experience of crime scene examination. This will include the search, identification and recording of evidence located at these scenes. Students will complete reports on crime scene examination including, risk assessment, results and evaluation.

Student Workload (SWL)

Student's academic load

Structured SWL (h/ sem) Regular student load during the semester	33	**Structured SWL (h/w)** Regular weekly student workload	2.2
Unstructured SWL (h/ sem) Irregular student load during the semester	77	**Unstructured SWL (h/w)** Irregular student study load per week	5
Total SWL (h/ sem) The student's total academic load during the semester	100		

Module Evaluation

Course material evaluation

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10 % (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10 % (10)	2, 12	LO # 3, 4, 6 and 7
	Projects / Lab.	1	10 % (10)	Continuous	
	Report	1	10% (10)	13	LO # 5, 8 and 10
Summative assessment	**Midterm Exam**	2 hours	10 % (10)	7	LO #1-7
	Final Exam	2 hours	5 0% (5 0)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

Theoretical weekly curriculum

	Material Covered
Week 1	Introduction - crime science
Week 2	collect and package evidence, prepare laboratory submission forms and identify errors in them,
Week 3	Recover contact trace material in practical forensic examination, and write a simple expert report
Week 4-5	The role of crime scene investigators in the preservation, recovery and recording of evidence at the crime scene and evaluation of crime scene evidence.
Week 6	the scope, methods and limitations of crime scene examination and forensic enquiry in the crime to court process.
Week 7	main evidence types in volume, major and serious crimes
Week 8	Evidence found at crime scenes.
Week 9	Investigation of crime scenes.
Week 10	Search techniques.
Week 11	Recovering evidence and other information.
Week 12	Team working at crime scenes.
Week 12-13	Reporting crime

Week 14	scene investigations.
Week 15	Exam
Week 16	**Preparatory week before the final exam**

Learning and Teaching Resources

Learning and teaching resources

	Text	Available in the Library?
Required Texts	Cook, T. Hill, M. and Hibbitt, S. (2016) Blackstone's Crime Investigator's Handbook. Oxford: Oxford University Press.	Yes
Recommended Texts	Beaufort- Moore, D. (2015) Crime Scene Management and Evidence Recovery, 2nd Edition. Oxford: Oxford University Press	No
Websites	Self html (the English version is still (early 2005) in its infancy at: http://www.selfhtml.org/	

Grading Scheme

Grading scheme

Group	Grade	Appreciation	Marks (%)	Definition
Success Group (50 - 100)	**A** - Excellent	privilege	90 - 100	Outstanding Performance
	B - Very Good	very good	80 - 89	Above average with some errors
	C - Good	good	70 - 79	Sound works with notable errors
	D - Satisfactory	middle	60 - 69	Fair but with major shortcomings
	E - Sufficient	acceptable	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX** – Fail	Precipitate (in (process	(45-49)	More work required but credit awarded
	F – Fail	Failed	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Criminal Investigation Course Description Form

Module Information

Course information

Module Title	Investigation and criminal investigation	**Module Delivery**	
Module Type	**Core**	☒**Theory** ☒**Lecture** ☒**Lab** ☐**Tutorial** ☐**Practical** ☐**Seminar**	
Module Code	FRSC103		
ECTS Credits	٧		
SWL (hr / sem)	١٧٥		

Module Level	1	**Semester of Delivery**	2
Administration Department	FORN	**College**	poly
Module Leader		**e-mail**	Email
Module Leader's Acad. Title		**Module Leader's Qualification**	
Module Tutor	Name (if available)	**e-mail**	Email
Peer Reviewer Name	Name	**e-mail**	Email
Scientific Committee Approval Date	0	**Version Number**	1.0

Relation with other Modules

Relationship with other subjects

Prerequisite module	none	**Semester**	2/1
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents

Course objectives, learning outcomes, and guiding content

Module Aims Course objectives	If the ultimate goal of criminal investigation is to search for and investigate the truth, the investigator alone cannot do this, especially if the crime .committed is ambiguous Ambiguity and lack of knowledge of all its .aspects, especially if the investigation relates to facts of a scientific nature Or a technical matter that is difficult for the investigator to understand and analyze, not because of a lack of intelligence, experience or awareness, but because The investigator's background and legal experience do not .allow him to perceive matters that are appropriate for him Technicians . and specialists Therefore, in this section we will discuss the definition of expertise and . explain its importance in criminal evidence
Module Learning Outcomes	The expert's mission is characterised by a number of characteristics. It is a technical, specific mission of a judicial nature and an optional procedure for the court. On this basis, the expert must possess the skills... : The following technical skill -١

Learning outcomes for the subject	The most important feature of expertise is that it has a technical nature, and the judge or investigator resorts to the assistance of an expert only because the issue presented in the criminal case has a technical nature that neither of them can assess according to his qualifications and experience. Accordingly, the expert's task assumes the expert's assistance with his technical information, and accordingly, the one whom the judge orders to conduct an inspection in which he relies only on his senses is not considered an expert, but the one whom the court orders to conduct an inspection and come up with the results of this observation if it requires the application of scientific or technical methods is considered an expert. ٢- The skill of being able to determine the extent of behavior When the expert is appointed, the task he is to perform and the issues he is obligated to answer, reveal or analyze in a manner consistent with his technical or professional expertise are specified. The judge clearly and specifically designates the subject of the expert's task, and in some cases sets specific questions for him that the expert must answer . The expert's task may not be general and include expressing an opinion on the case, as this would be considered an abandonment of his mission by the judge. . ٣- judicial skill This means that the issue of resorting to expertise is a matter decided by the court alone, either based on a request from the parties to the criminal case or based on a decision it makes on its own initiative, according to its assessment of the matter before it and its need for a technical opinion. The issue of selecting an expert is up to the court, which takes into account his technical knowledge. It may consult the parties in this regard, but it is not obligated to request them. The expert does not perform his task except by judicial delegation, except by judicial delegation, and he performs his task under the supervision of the judge. The summary of the expert's work included in his report is ultimately subject to the judge's discretion. . ٤- skill Optional The basis of expertise is that it is an optional procedure for the court. This means that the court is not obligated to respond to the parties' requests to appoint an expert in the case as long as it sees in the evidence of the case before it what enables it to decide the case without resorting to the expert's opinion. . In application of this, the Egyptian Court of Cassation ruled that "there is no prejudice to the right of defense if the court does not respond to the request to appoint an expert to examine the contract, which is considered to be forged, provided that what was stated in its ruling by way of forgery and its proof against the accused indicates that the court was convinced by what it saw and what it found out from the facts of the case and the statements of the witnesses that forgery had occurred and that it did not need to seek a technical opinion in this regard." The Iraqi Court of Cassation ruled that "the court is not obligated to summon another expert if the fact being investigated is sufficiently clear, and in this case the court must provide reasons for its refusal". .
Indicative Contents Guidance contents	If the investigator has to devote himself to research and investigation work such as interrogation, questioning of witnesses, inspection, search and gathering other information, then the care and examination of the effects should be left to an expert who specializes in this type of work. Therefore, the expert is that person who has acquired practical and technical experience as a result of scientific studies such as a forensic doctor or chemical analyst or as a result of practicing a certain profession for a period of time such as craftsmen and industrialists such as carpenters, blacksmiths and others. . It is permissible for the expert to give his opinion orally before the investigator, who must record it in the investigation report, and then both of them must sign it. Therefore, the work of the forensic doctor or the criminal laboratory expert with the investigator is essential to remove the veil from the ambiguity and circumstances surrounding the crime. The more this cooperation between the two increases, the easier it is to discover the crime and identify its perpetrator. Note that the investigator or judge is not obligated to take the expert's opinion into account, according to the principle of the judge's personal conviction and forming his opinion and belief in conviction or innocence in criminal matters according to his belief, as he is the expert of experts and has the final say in criminal matters. The judge's authorization of an expert to give advice regarding the incident or the accused's responsibility is a type of power of attorney. This opinion has been subjected to many criticisms, including that the expert's opinion does not bind anyone, and the expert is not responsible for his minor errors, unlike the relationship that links the agent to the client, as the former represents the latter in a way that binds him towards others, and this is binding upon him according to the power of attorney contract, because the purpose of the agency is to carry out legal work on behalf of the client. Likewise, the agent does not have more powers than his client, while expertise is completely different from this matter, as it does not obligate the judge to take it, on the one hand, and the judge cannot carry out the work of the expert, and he does not have the powers of a judge. .

Learning and Teaching Strategies Learning and teaching strategies	
Strategies	Experience represents technical information that the investigator obtains from masters of art, crafts and knowledge. This information helps him solve the problems that he faces that cannot be solved

	with his own information and reach decisive results regarding them due to his lack of familiarity with the matters and issues that may depend on reaching evidence, which is the evidence of committing the crime and attributing it to its perpetrator. For example, the criminal researcher or the judge cannot reach the efficiency of the toxic substance used by the perpetrator to cause death unless he seeks the assistance of a specialist chemist to find out that . Especially since there are many cases in which experience plays an effective and primary role in deciding the subject and revealing the circumstances of the crime . Sometimes experience is the only evidence by which one can arrive at what is to be proven, and thus experience is a method of investigation . One of the ironies of the situation is that experience may be in contradiction to many pieces of evidence , and despite that, the researcher relies on it because it is based on the certainty of specialists and rarely does doubt or probability creep . into it The expert gains his expertise through practicing a specific profession, work, or scientific specialization . However, we do not accept the statement that anyone to whom the investigator or judge assigns a task of a special nature is considered an expert unless he possesses the qualities of . perception and deduction, in addition to honesty and sincerity

Student Workload (SWL)

Student's academic load

Structured SWL (h/ sem) Regular student load during the semester	93	**Structured SWL (h/w)** Regular weekly student workload	6.2
Unstructured SWL (h/ sem) Irregular student load during the semester	82	**Unstructured SWL (h/w)** Irregular student study load per week	5.4
Total SWL (h/ sem) The student's total academic load during the semester	175		

Module Evaluation

Course material evaluation

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10 % (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10 % (10)	2, 12	LO # 3, 4, 6 and 7
	Projects / Lab.	1	10 % (10)	Continuous	
	Report	1	10% (10)	13	LO # 5, 8 and 10
Summative assessment	**Midterm Exam**	2 hours	10 % (10)	7	LO #1-7
	Final Exam	2 hours	5 0% (5 0)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

Theoretical weekly curriculum

	Material Covered
Week 1	١- The concept of forensic expert
Week 2	٢- The relationship between the criminal expert and the civil expert
Week 3	٣-Legal regulation of the criminal expert
Week 4	٤-The legal responsibility of the forensic expert
Week 5	٥- Mechanisms of the forensic expert's work
Week 6	Legal protection for the criminal expert
Week 7	٧- The relationship between the investigator and the expert
Week 8	٨- Characteristics of a forensic expert
Week 9	٩- Exam
Week 10	Civil liability of the expert
Week 11	١١- Criminal responsibility of the expert
Week 12	١٢- Procedures for appointing a criminal expert
Week 13	١٣- Experience fees Criminal
Week 14	١٤- Legal value For experience Criminal
Week 15	Exam
Week 16	**Preparatory week before the final exam**

Delivery Plan (Weekly tot. Syllabus)

Weekly lab schedule

	Material Covered
Week 1	٢- The relationship between the criminal expert and the civil expert
Week 2	٤-The legal responsibility of the forensic expert
Week 3	٥- Mechanisms of the forensic expert's work
Week 4	٧- The relationship between the investigator and the expert
Week 5	١١- Criminal responsibility of the expert
Week 6	١٤- Legal value For experience Criminal
Week 7	١٤- Legal value For experience Criminal

Learning and Teaching Resources

Learning and teaching resources

	Text	Available in the Library?
Required Texts		Yes
Recommended Texts		No

Websites	

Grading Scheme Grading scheme				
Group	**Grade**	Appreciation	**Marks (%)**	**Definition**
Success Group (50 - 100)	**A** - Excellent	privilege	90 - 100	Outstanding Performance
	B - Very Good	very good	80 - 89	Above average with some errors
	C - Good	good	70 - 79	Sound works with notable errors
	D - Satisfactory	middle	60 - 69	Fair but with major shortcomings
	E - Sufficient	acceptable	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX** – Fail	Precipitate (in (process	(45-49)	More work required but credit awarded
	F – Fail	Failed	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Arabic Language Course Description Form

Module Information Course information					
Module Title	**Arabic**			**Module Delivery**	
Module Type	**support**			☒**Theory** ☐**Lecture** ☐**Lab** ☐**Tutorial** ☐**Practical** ☐**Seminar**	
Module Code	NTU103				
ECTS Credits	٢				
SWL (hr / sem)	٥٠				
Module Level	1		**Semester of Delivery**	٢	
Administration Department	MPH		**College**	poly	
Module Leader	Dr. Ahmed Kahlaf		**e-mail**	Ahmed.k@kus.edu.iq	
Module Leader's Acad. Title	lecturer		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Name (if available)		**e-mail**	Email	
Peer Reviewer Name	none		**e-mail**	none	
Scientific Committee Approval Date			**Version Number**	1.0	

Relation with other Modules Relationship with other subjects			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents Course objectives, learning outcomes, and guiding content	
Module Aims Course objectives	١- Learn proper Arabic as it is the official language of the country ٢- Language is the essence and symbol of identity ٣- .Language is different from dialect, the former is universal and the latter is local ٤- Using classical vocabulary in academic formulation of scientific research Translated into its classical equivalent ٥- Ability to write research and articles with purely scientific content in classical Arabic ٦- .Avoid common writing mistakes and choose the right vocabulary ٧- Enriching the student's lexical store to help build the charisma of verbal communication ٨- Reviewing examples of Arabic literature, both poetry and prose, as they are a .basis for building the diverse cultural aspect of the student ٩- Writing numbers is very important. Please write correctly in formulating formal .requests ١٠- Learn about the phonetic lesson in the Arabic language and its .relationship to physics
Module Learning Outcomes Learning outcomes for the subject	:Upon completion of the course material, the student will be able to ١- Correct writing free of errors ٢- Correct academic scientific expression ٣- Using classical vocabulary in terms of usage and pronunciation ٤- Adding linguistic resources and new concepts to the meanings of words ٥- Ability to address administrative matters in official requests
	١- Every specialization has its own language that alludes to it and indicates it, and the language of every science stems from the nature of its essence . Scientific specializations have their own lexicon that expresses their essence and content, in addition to their own terminology that indicates them, as well as the scientific sources that are referred to. The situation is the same as in literary language; it also has its own vocabulary, method of writing and expression with it and through it, and its own terminology that expresses and indicates it. [4 hrs] ٢- Dictionaries - in general - with their different resources represent the content and cover of the vocabulary of any language coupled with the explanation and interpretation of that vocabulary. As for dictionaries in the Arabic language, they are wide and varied; there are dictionaries other than language dictionaries. Arabic has the first geographical dictionary in history, the Dictionary of Countries by (Yaqut al-Hamawi) , in addition to dictionaries specialized in a certain part,

Indicative Contents Guidance contents	such as dictionaries of rhetoric, in addition to the diversity of schools in composing dictionaries, their classification, and the method of searching for a word in them. [4 hrs] ٣- The sign falls within the field of semiotics , and punctuation marks are important topics, especially in academic research, regardless of the specialization, whether scientific or humanistic، hence: Punctuation is important because it has a significant semiotic and semantic role in writing and in constructing a text . It facilitates understanding for the reader and clarifies the intended meaning through reading and pronunciation. Punctuation is the best way to demonstrate frankness and clarity in written speech , because it guides the observer to these conventional signs and to the relationships that connect parts of speech to each other in general, and parts of each sentence in particular . As specialists say about punctuation marks: the pause is not independent, but rather a consequence of thinking , meaning that the pauses established in precise amounts in specific places are not merely breathing stations in the biological sense of breathing, but rather primarily moral pauses. From a linguistic perspective, the point is not for the reader to regain his sense of self, but rather that the reader engages in silence in known amounts, and in specific places in the spoken chain, to remove ambiguity and protect the speaker's intention from change , as these signs embody the writer's feelings and intentions in them. [6 hrs] ٤- The writing style represents the fingerprint of the writer who produces it, and is embodied in the reader. Every writer has his own style, which is reflected in the writer's output. Style has different types, such as the scientific style, the literary style, and the rhetorical style. Each type has its own characteristics and the form in which it is formed. [4 hrs] ٥- Events that are associated with time represent verbs, and verbs in Arabic correspond to times in other languages in a certain aspect, or in a certain part, and Arabic contains a large number of roots, verb roots, in Arabic there are triliteral, quadriliteral, quintiliteral and sextiliteral verbs, and the verb is an important part of the basic parts of speech, in addition to the phonetic aspect of these roots, so the science of (physical phonetics) is one of the important sciences in the Arabic language, as the science of (acoustic phonetics) is a science closer to physics than to the humanities, and it represents the middle stage between phonetics and auditory phonetics , and its relationship with the Arabic language starts from the first seed in the study of letter exits physically and semantically. [4 hrs]
Indicative Contents Guidance contents	٦- Talking about poetry is endless; poetry is the embodiment of the feelings of the individual represented by the poet, and the collective feelings of humanity as a whole. It exists in all human beings, and ancient Arabic poetry was like a national anthem for them, representing their solid cultural identity and a record of their history and glories, with its different purposes of flirting, praise, elegy, and others. The poetic meters in Arabic poetry are built with a unique vocal structure through the activations that Al-Khalil bin Ahmed Al-Farahidi established, and he laid down its philosophy, essence, and rules. Poetry is a cultural asset, an argument in speech, and an adornment and splendor that is added to the personality of the individual and society in general. [4 hrs] ٧- The hamza is a procedural topic for the individual writer, regardless of the specialization. Every individual who speaks and writes with it needs it, as it has its rules that emanate from it, and it is written in the correct form from it. The topic of drawing the hamza is of great importance; drawing it changes the meaning, so it must be placed and drawn in the correct form to ensure accurate expression of the intended meaning. [4 hrs] ٨- Objects in the Arabic language are an important topic in the study of the Arabic language, and every student must know them in general. There are different opinions among rhetoricians and grammarians about objects , are those objects superfluous? Or is it a main component of the sentence? Grammarians see it as an extra part of the sentence, and that the two main components of the sentence are: the verb, The subject, but the rhetoricians see: it is not superfluous, Rather, it is a basic component of the sentence , because every word indicates a meaning in the sentence, and if it indicates a meaning, it is not considered redundant . It is a major pillar In the sentence and its

Learning and Teaching Strategies

Learning and teaching strategies

Strategies	Creating an integrated personality for the university student in terms of precise scientific specialization and supporting specialization
	structure, the opinion of rhetoricians is closer to the truth than the opinion of grammarians , so studying it in Arabic for non-specialists adds to their diverse .expressive storehouse[4 hrs] From The well-known presence phenomenon Mistakes Linguistic Grammatically She -٩ was or Spelling or Stylistic , when Speakers the language Arabic Especially when not Specialists in it, especially those working in the field of media, And this The phenomenon expanded And he added Its spread in The era Hadith, So I took This is amazing Mistakes invade Fields the study All of them, from that Subject (number) in the language Arabic, We find a lot from Students And also from General the people They use Numbers Instead from writing it In letters; And that To avoid falling in error This guide weakness no It is appropriate By the student Anyway He was His specialty ; That's why On the subject number and rules Writing it in the language Arabic An . indispensable topic in the age of the language of numbers[4 hrs] There is a group of words that are widely used, and are used in the wrong place, -١٠ and for a purpose other than what they were created for. These words are used in official administrative correspondence in the incorrect or imprecise meaning that those words carry, in addition to the importance of being precise in using these words in official requests that are submitted on various topics. The request must be brief and focused, giving a concise idea, and the intended goal towards the owner of the administration to whom the requests are submitted, and what that has of positives in reducing and shortening the effort and time in implementing the administrative tasks .assigned to individuals of different ranks[4 hrs]

Student Workload (SWL)

Student's academic load			
Structured SWL (h/ sem) Regular student load during the semester	33	**Structured SWL (h/w)** Regular weekly student workload	2
Unstructured SWL (h/ sem) Irregular student load during the semester	17	**Unstructured SWL (h/w)** Irregular student study load per week	1
Total SWL (h/ sem) The student's total academic load during the semester	50		

Module Evaluation

Course material evaluation

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10 % (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10 % (10)	2, 12	LO # 3, 4, 6 and 7
	Projects / Lab.	1	10 % (10)	Continuous	
	Report	1	10% (10)	13	LO # 5, 8 and 10
Summative assessment	**Midterm Exam**	1 hour	10 % (10)	7	LO #1-7
	Final Exam	2 hours	5 0% (5 0)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

Theoretical weekly curriculum

	Material Covered
Week 1	The difference between scientific language and literary language
Week 2	Arabic dictionaries and their types
Week 3	punctuation marks
Week 4	style
Week 5	Verbs - their types and divisions
Week 6	Selected examples of ancient Arabic poetry - Islamic poetry - Umayyad poetry
Week 7	Mid-term Exam
Week 8	'Drawing the hamza / hamzat al-wasl and hamzat al-qata
Week 9	Writing the hamza at the beginning and end of a word
Week 10	Subject and Predicate - Number Writing Skills
Week 11	Objects / Object - Object for
Week 12	The accompaniment - the object in which - the absolute object
Week 13	Arabic prose
Week 14	Common Mistakes – How to Write Formal Requests
Week 15	Selected examples of Abbasid and modern poetry
Week 16	Preparatory week before the final exam

Learning and Teaching Resources

Learning and teaching resources

	Texts	Available in the Library?
Required Texts	**Book : University Arabic for Non-Specialists / Dr. Abdo Al-Rajhi** Book : Applied Grammar / Dr. Abdo Al-Rajhi	both
Recommended Texts	Applied Morphology / Dr. Abdo Al- Rajhi Comprehensive Grammar / Abbas Hassan History of Arabic Literature / Shawqi Dayf	both
Websites	Al-Faseeh Network for Arabic Language Sciences	

Grading Scheme

Grading scheme

Group	Grade	Appreciation	Marks (%)	Definition
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