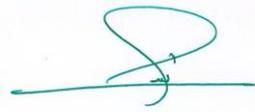


## MODULE DESCRIPTOR FORM

Module Information			
<b>Module Title</b>	PRINCIPLES OF FORENSIC SCIENCE	<b>Module Delivery</b>	
<b>Module Type</b>	CORE	<input checked="" type="checkbox"/> Lecture <input checked="" type="checkbox"/> Practical <input checked="" type="checkbox"/> tutorial	
<b>Module Code</b>	FOR11002		
<b>ECTS Credits</b>	7		
<b>SWL (hr/sem)</b>	175		
<b>Module Level</b>	1	<b>Semester of Delivery</b>	1
<b>Administering Department</b>	Forensic evidence	<b>College</b>	<b>College of Sciences</b>
<b>Module Leader</b>	Ali Hamed Aribi	<b>e-mail</b>	<a href="mailto:ali.h@uowa.edu.iq">ali.h@uowa.edu.iq</a>
<b>Module Leader's Acad. Title</b>	Assistant Lecturer	<b>Module Leader's Qualification</b>	.MS.c
<b>Module Tutor</b>	Ali Hamed Aribi	<b>e-mail</b>	<a href="mailto:ali.h@uowa.edu.iq">ali.h@uowa.edu.iq</a>
<b>Peer Reviewer name</b>	Mohamad Abd Ali Hamza	<b>e-mail</b>	<a href="mailto:mohammed.ab@uowa.edu.iq">mohammed.ab@uowa.edu.iq</a>
<b>Review Committee Approval</b>	20-12-2025	<b>Version Number</b>	V 1.0

Relation With Other Modules			
<b>Prerequisite module</b>	Principles of Forensic Science	<b>Semester</b>	-
<b>Co-requisites module</b>	Forensic Science Techniques	<b>Semester</b>	-

  
 أ.د. سيماء حسينا نونل  
 ٢٠٢٥ - ٢٠٢٦



  
 أ.د. سيماء حسينا نونل  
 ٢٠٢٥ - ٢٠٢٦

**Department Head Approval**

**Dean of the College Approval**

## Module Aims, Learning Outcomes and Indicative Contents

<b>Module Aims</b>	To introduce students to the scientific principles, scope, and applications of forensic science in criminal investigation and justice. The course provides an understanding of various branches of forensic science, the handling of physical evidence, and the role of forensic experts within the legal system
<b>Module Learning Outcomes</b>	After successful completion of this course, students will be able to: <ul style="list-style-type: none"><li>- Explain the fundamental concepts, scope, and ethical framework of forensic science.</li><li>- Identify various types of physical and biological evidence and understand their forensic significance.</li><li>- Describe crime scene management procedures and evidence handling.</li><li>- Understand the relationship between forensic science and the legal system.</li><li>- Appreciate recent technological advances in forensic science.</li></ul>
<b>Indicative Contents</b>	Identify problems, make predictions, develop hypotheses, and devise methods for conducting investigations to test the hypotheses; Plan and carry out procedures and experimental processes in an appropriate sequence; Use experimental controls where appropriate; Modify an original plan or sequence of operations in response to difficulties encountered during experiments or when obtaining unexpected results; Consider potential sources of error and risk in experimental design; Select and use appropriate equipment and techniques.

## Learning and Teaching Strategies

<b>Strategies</b>	The ability to: - identify problems, make predictions, develop hypotheses and devise means of carrying out investigations to test the hypotheses; - plan and execute experimental procedures and operations in an appropriate sequence; - use experimental controls where appropriate; - modify an original plan or sequence of operations as a result of difficulties encountered in carrying out experiments or obtaining unexpected results; - take into account possible sources of errors and danger in the design of an experiment; - select and use appropriate equipment and techniques.
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## Student Workload (SWL)

<b>Structured SWL (h/sem)</b>	78	<b>Structured SWL (h/w)</b>	5.2
<b>Unstructured SWL (h/sem)</b>	97	<b>Unstructured SWL (h/w)</b>	6.4
<b>Total SWL (h/sem)</b>	175		

## Module Evaluation

		Time/Number		Weight (Marks)		Week Due	Relevant Learning Outcome
		TH	LAB	TH	LAB		
<b>Formative assessment</b>	<b>Quizzes</b>	2	2	4	10	15 and 1	3,7
	<b>Homework assignment</b>	2	1	4	10	6and 13	1,8
	<b>Onsite Assignments</b>	-	-	-	-	Continuo us	All
	<b>Projects</b>	1	7	2	10	14	All
<b>Summative assessment</b>	<b>Midterm Exam</b>	1		10		7	
	<b>Final Exam</b>	3hr		50		15	
<b>Total assessment</b>				100 Marks			

## Delivery Plan (Weekly Syllabus)

	<b>Material Covered</b>
<b>Week 1</b>	<b>Introduction to Forensic Science</b> Definition, nature, and scope of forensic science; Historical development and significance in modern criminal justice.
<b>Week 2</b>	<b>Nature and Functions of Forensic Science</b> Role of forensic science in criminal detection, prevention, and societal security; Interdisciplinary applications.
<b>Week 3</b>	<b>Branches of Forensic Science</b> Overview of main branches—Forensic Biology, Forensic Chemistry, Forensic Toxicology, Forensic Physics, Digital Forensics, and Questioned Document Examination.
<b>Week 4</b>	<b>Organization of Forensic Laboratories</b> Structure, divisions, and functions of forensic laboratories at national and international levels; Accreditation and quality assurance.
<b>Week 5</b>	<b>Ethics and Professional Conduct in Forensic Practice</b> Ethical responsibilities; Code of conduct; Impartiality, confidentiality, and professional standards for forensic scientists.
<b>Week 6</b>	<b>Crime and the Criminal Justice System</b> Definition and types of crime; Stages of criminal investigation; Interaction between police, judiciary, and forensic experts.
<b>Week 7</b>	<b>Crime Scene Management</b> Approach to the crime scene; Securing and protecting the scene; Documentation, sketching, photography, and evidence recovery.
<b>Week 8</b>	<b>Physical Evidence: Nature and Types</b> Classification and significance of evidence—biological, physical, chemical, and digital.
<b>Week 9</b>	<b>Principles of Evidence Examination</b> Locard's Exchange Principle; Principles of identification, individualization, reconstruction, and evaluation.
<b>Week 10</b>	<b>Collection, Preservation, and Chain of Custody</b> Techniques of collection, labeling, packaging, transportation; Maintenance of chain of custody of forensic exhibits.
<b>Week 11</b>	<b>Forensic Examination of Trace Evidence</b> Study and analysis of trace materials—hair, fibers, glass, soil, paint, and other micro-evidences.
<b>Week 12</b>	<b>Forensic Biology and Serology</b> Introduction to biological evidence; Blood grouping; Detection of body fluids; Basic DNA profiling techniques.
<b>Week 13</b>	<b>Forensic Chemistry and Toxicology</b> Analysis of drugs, poisons, alcohol, explosives, and chemical residues; Role in medico-legal investigations.
<b>Week 14</b>	<b>Legal and Ethical Aspects of Forensic Science</b> Relevant evidence laws; Expert testimony; Admissibility of forensic evidence; Courtroom procedures.
<b>Week 15</b>	<b>Recent Advances and Case Studies</b> Modern forensic technologies—DNA databases, automated fingerprint systems, AI in forensics; Discussion of landmark forensic cases.

## Delivery Plan (Weekly Lab. Syllabus)

	<b>Material Covered</b>
<b>Week 1</b>	Introduction to Forensic Sciences.
<b>Week 2</b>	The relationship between forensic evidence and criminal investigation.
<b>Week 3</b>	Crime Scene: Concept of the crime scene and its types.
<b>Week 4</b>	Forensic Evidence Types
<b>Week 5</b>	Biological Evidence.
<b>Week 6</b>	Fingerprint Science: Types of fingerprints (fingers, palms, soles).
<b>Week 7</b>	Examination of Weapons and Projectiles.
<b>Week 8</b>	Report Discussion.
<b>Week 9</b>	Forensic Toxicology.
<b>Week 10</b>	Chemical and Physical Evidence.
<b>Week 11</b>	Digital Evidence: Cybercrimes
<b>Week 12</b>	Chain of Custody.
<b>Week 13</b>	Role of the Forensic Expert.
<b>Week 14</b>	Ethics of Forensic Work.
<b>Week 15</b>	Comprehensive Review and Discussion of Practical Cases

## Learning and Teaching Resources

	Text	Available in the Library?
<b>Required Texts</b>	Forensic Science: An Introduction to Scientific and Investigative Techniques Criminalistics: An Introduction to Forensic Science	
<b>Recommended Texts</b>	<ul style="list-style-type: none"> <li>• Saferstein, R. Criminalistics: An Introduction to Forensic Science. Pearson.</li> <li>• Sharma, B.R. Forensic Science in Criminal Investigation and Trials. Universal Law Publishing.</li> <li>• Fisher, B.A.J. Techniques of Crime Scene Investigation. CRC Press.</li> <li>• James, S.H., Nordby, J.J., &amp; Bell, S. Forensic Science: An Introduction to Scientific and Investigative Techniques. CRC Press.</li> <li>• Houck, M.M. &amp; Siegel, J.A. Fundamentals of Forensic Science. Academic Press.</li> </ul>	
<b>Websites</b>	None	

### APPENDIX:

#### GRADING SCHEME

Group	Grade	Mark	Marks (%)	Definition
<b>Success Group (50 - 100)</b>	A - Excellent	Excellent	90 - 100	Outstanding Performance
	B - Very Good	Very Good	80 - 89	Above average with some errors
	C - Good	Good	70 - 79	Sound work with notable errors
	D - Satisfactory	Fair / Average	60 - 69	Fair but with major shortcomings
	E - Sufficient	Pass / Acceptable	50 - 59	Work meets minimum criteria
<b>Fail Group (0 - 49)</b>	FX – Fail	Fail (Pending)	(45-49)	More work required but credit awarded
	F – Fail	Fail	(0-44)	Considerable amount of work required

Note:

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.