# NARS for Master degree

#### أ ـ المعرفة والفهم:

المقررات التى تحقق المعايير الأكاديمية للبرامج	مخرجات التعلم المستهدفة ILOs	(ARS)	(NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا
- General toxicology, Regulating laws of drugs & toxins - Forensic chemistry - Forensic pathology - Clinical pharmacology - Forensic chemistry - Forensic Medicine & Medicolegal Responsibilities - Clinical Toxicology - Addiction Medicine - Forensic Odontology - Forensic Radiology	A1, A2, A3, A5	A1: Recognize pharmacokinetics, pharmacodynamics, interactions of therapeutic and non therapeutic drugs, drug abuse and dependence.  A2: Recognize principles of toxicokinetics, mechanisms of acute and chronic toxicity, and principles for general management of poisoned patient.  A3: Identify different methods of sample collection with following chain of custody; preservation; describe the toxicological different analytical methods and recognize their principles and techniques  A5:Describe principles of pathological inflammation, repair, necrosis, degeneration, carcinogenesis and characters of different pathological lesions essential for forensic practice.	1) Theories, concepts and specialized knowledge of the learning area and also sciences appropriate to the professional practice.
Forensic chemistry     Forensic Medicine & Medicolegal Responsibilities     Clinical Toxicology	A3, A8, A12	A3: Identify different methods of sample collection with following chain of custody; preservation; describe the toxicological different analytical methods and recognize their principles and techniques  A8: Recognize principles for dealing with cadavers and living cases for medicolegal examination, how to identify, the basic medicolegal aspects of different post mortem changes, asphyxia, pregnancy, abortion, delivery, violence against females and children and follow ethical guidelines in dealing with the cases  A12: Explain basics and recent guidelines in management of both acute and chronic toxicity of common classes of drugs, environmental and occupational toxins and discuss ethical and physician-patient safety guidelines in their management	2) Mutual influence between professional practice and its impacts on the environment.
<ul> <li>Forensic Medicine &amp; Medicolegal Responsibilities</li> <li>Injuries and Permanent Infirmities</li> <li>Clinical Toxicology</li> <li>Addiction Medicine</li> <li>Forensic Odontology</li> <li>Forensic Radiology</li> </ul>	A7, A8, A12	A7: Recognize the medico-legal aspects of wounds, regional injuries, different types of injuries and permanent infirmities.  A8: Recognize principles for dealing with cadavers and living cases for medicolegal examination, how to identify, the basic medicolegal aspects of different post mortem changes, asphyxia, pregnancy, abortion, delivery, violence against females and	3) Scientific developments in the field of specialization

Forensic Medicine & Medicolegal Responsibilities Injuries and Permanent Infirmities Clinical Toxicology	A8, A12	children and follow ethical guidelines in dealing with the cases A12: Explain basics and recent guidelines in management of both acute and chronic toxicity of common classes of drugs, environmental and occupational toxins and discuss ethical and physician-patient safety guidelines in their management  A8: Recognize principles for dealing with cadavers and living cases for medicolegal examination, how to identify, the basic medicolegal aspects of different post mortem changes, asphyxia, pregnancy, abortion, delivery, violence against females and	4) Moral and legal ethics of the professional practice in the area of specialization.
- Forensic Medicine & Medicolegal	A8, A12	children and follow ethical guidelines in dealing with the cases A12: Explain basics and recent guidelines in management of both acute and chronic toxicity of common classes of drugs, environmental and occupational toxins and discuss ethical and physician-patient safety guidelines in their management  A8: Recognize principles for	5) The concepts and minerales
Responsibilities -Clinical Toxicology - Addiction Medicine - Forensic Odontology - Forensic Radiology		dealing with cadavers and living cases for medicolegal examination, how to identify, the basic medicolegal aspects of different post mortem changes, asphyxia, pregnancy, abortion, delivery, violence against females and children and follow ethical guidelines in dealing with the cases A12: Explain basics and recent guidelines in management of both acute and chronic toxicity of common classes of drugs, environmental and occupational toxins and discuss ethical and physician-patient safety guidelines in their management	5) The concepts and principles of quality of the professional practice in the area of specialization.
Thesis	A11	A11. Discuss writing a scientific methodology study on research problem, follow ethical guidelines in research and using proper statistical methods	6) The basics and ethics of scientific research.

### ب ـ القدرات الذهنية:

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Forensic Medicine & Medicolegal Responsibilities -Injuries and Permanent Infirmities -Clinical Toxicology - Addiction Medicine - Forensic Odontology - Forensic Radiology	B1, B2, B3,	dilemmas and suggest the proper solutions of different problems of malpractice.  B2: Analyze and correlate different findings from medicolegal examination to identify the cause and manner of death as well as the type and cause of injuries.  B3: Analyze data taken from history taking, clinical examination, laboratory and radiological investigations to reach proper diagnosis of toxicological cases and distinguish the differential diagnosis of cases.	1) Analyze and evaluate of information in the field of specialization and make full use of such information to solve problems.
Forensic Medicine & Medicolegal Responsibilities -Injuries and Permanent Infirmities -Clinical Toxicology - Addiction Medicine - Forensic Odontology - Forensic Radiology	B1, B2, B3,	B1: Determine basic ethical dilemmas and suggest the proper solutions of different problems of malpractice.  B2: Analyze and correlate different findings from medicolegal examination to identify the cause and manner of death as well as the type and cause of injuries.  B3: Analyze data taken from history taking, clinical examination, laboratory and radiological investigations to reach proper diagnosis of toxicological cases and distinguish the differential diagnosis of cases.	2) Solve specific problems on the basis of limited and contradictory information.
Forensic Medicine & Medicolegal Responsibilities -Injuries and Permanent Infirmities -Clinical Toxicology	B7	B7. Retrieve, analyze, and evaluate relevant and current data from literature, using information technologies and library resources, in order to help solve a clinical problem based on evidence (EBM).	3) Demonstrate a high level of competence in the coordination of different sources of knowledge to solve professional problems
Thesis	B6	<b>B6:</b> Create a hypothesis based on a research gap in the field of study, organize a research design and choose proper research methodology.	4) Carry out a research study and / or writing a scientific methodology study on research problem.
Clinical Toxicology - Addiction Medicine	B4	B4: Assess the risks in dealing with cases of occupational exposure and special groups of patients e.g. pregnant female, pediatrics, geriatrics, addicts and psychiatric disorders and follow physician-patient safety guidelines.	5) Assess and analyze risks of the professional practice in the field of specialization.
Forensic Medicine & Medicolegal Responsibilities -Injuries and Permanent Infirmities -Clinical Toxicology	B7	B7. Retrieve, analyze, and evaluate relevant and current data from literature, using information technologies and library resources, in order to help solve a clinical problem based on evidence (EBM).	6) Plan to improve performance in the field of specialization
Forensic Medicine & Medicolegal Responsibilities -Injuries and Permanent Infirmities -Clinical Toxicology	B1,B2, B3,B5	<ul><li>B1: Determine basic ethical dilemmas and suggest the proper solutions of different problems of malpractice.</li><li>B2: Analyze and correlate</li></ul>	7) Make career decisions in different professional aspects

- Addiction Medicine	differe	nt findings	from	
- Forensic Odontology	medic	olegal examination	on to	
- Forensic Radiology	identif	y the cause and ma	nner of	
	death	as well as the ty	pe and	
	cause	of injuries.		
	B3: A	Analyze data takei	n from	
	history	taking,	clinical	
	exami	nation, laboratory	and	
	radiolo	ogical investigatio	ns to	
	reach	proper diagnos	sis of	
	toxico	logical cases	and	
	disting	uish the diff	erential	
	diagno	sis of cases.		
	B5:	Determine admission	on and	
	discha	rge criteria.		

## ج - المهارات العملية:

المقررات التي تحقق المعايير الأكاديمية للبرامج	مخرجات التعلم المستهدفة ILOs	(ARS)	(NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا
Forensic Medicine & Medicolegal Responsibilities -Injuries and Permanent Infirmities -Clinical Toxicology	C1, C4, C5	C1: Perform medico-legal examination, interpret the different medico-legal findings and construct proper medico-legal reports.  C4: Take history, perform clinical examination and implement proper management of different toxicological cases.  C5. Select proper different toxicological and non toxicological investigation and interpret its result	1) Apply modern and principle professional skills in the area of specialization.
Forensic Medicine & Medicolegal Responsibilities -Injuries and Permanent Infirmities -Clinical Toxicology - Addiction Medicine - Forensic Odontology - Forensic Radiology	C1, C6, C7	C1: Perform medico-legal examination, interpret the different medico-legal findings and construct proper medico-legal reports.  C6: Construct proper transfer report including all patients' data, treatment received, recommendation and cause of transfer  C7: Construct medical request including specialty required, patient condition, cause and aim of the request.	2) Write and evaluate technical reports.
Forensic Medicine & Medicolegal Responsibilities -Injuries and Permanent Infirmities -Clinical Toxicology - Addiction Medicine - Forensic Odontology - Forensic Radiology	C1, C5	C1: Perform medico-legal examination, interpret the different medico-legal findings and construct proper medico-legal reports.  C5. Select proper different toxicological and non toxicological investigation and interpret its result	3) Adopt assessment methods and tools existing in the area of specialization

### د\_مهارات الاتصال:

المقررات التي تحقق المعايير الأكاديمية للبرامج	مخرجات التعلم المستهدفة ILOs	(ARS) Benchmark المعايير الأكاديمية لجامعة Royal	(NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا
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		College of Psychiatrists	
Forensic Medicine & Medicolegal Responsibilities -Injuries and Permanent Infirmities -Clinical Toxicology - Addiction Medicine	D1,D2, D4	D1: Demonstrate compassion, integrity, and respect for all human rights and treat all cases equally regardless to their believes, culture and behavior.  D2: Communicate effectively with patients, families, and the public.  D4: Communicate effectively with physicians, other health professionals, and health related agencies.	1) Communicate effectively in different aspects.
- Clinical toxicology - Addiction Medicine	D8	D8. Use recent information technologies and library resources, in order to help solve a clinical problem based on evidence (EBM).	2) Demonstrate efficient IT capabilities in such a way that serves in the development of the professional practice.
- Forensic Medicine & Medicolegal Responsibilities -Injuries and Permanent Infirmities -Clinical Toxicology	D9, D10	D9: Adopt principles of the lifelong learning needs. D10. Perform self assessment for proper management of cases and evaluate the performance of others	3) Adopt self-assessment and specify his needs of personal learning.
Forensic Medicine & Medicolegal Responsibilities -Injuries and Permanent Infirmities -Clinical Toxicology	D8	D8. Use recent information technologies and library resources, in order to help solve a clinical problem based on evidence (EBM).	4) Use different resources for information and knowledge.
Forensic Medicine & Medicolegal Responsibilities -Injuries and Permanent Infirmities -Clinical Toxicology	D10	<b>D10.</b> Perform self assessment for proper management of cases and evaluate the performance of others	5) Establish rules and indicators for assessing the performance of others.
-Clinical Toxicology - Addiction Medicine	D3, D4,	D3: Recognize one's own limitation of knowledge and skills and refer patients to appropriate specialized health facility at appropriate stage.  D4: Communicate effectively with physicians, other health professionals, and health related agencies.	6) Collaborate effectively within multidisciplinary team and lead teams in different professional contexts.
Clinical toxicology Addiction Medicine	D6	<b>D6:</b> Manage patient at proper time.	7) Demonstrate a high level of competence in the time management.
Forensic Medicine & Medicolegal Responsibilities -Injuries and Permanent Infirmities -Clinical Toxicology	D9	<b>D9:</b> Adopt principles of the lifelong learning needs.	8) Continuous self-education.