



Forensic Medicine & clinical Toxicology Department

Master (MSc) Program & Courses' Specifications of Clinical Toxicology

نموذج رقم (١٣)

Program Specifications for MSc of Clinical Toxicology

(2023)

Code: CT200

University: Minia University

Faculty(s): Faculty of Medicine

Department: Forensic Medicine & Clinical Toxicology

A. Basic Information:

- 1. Program title:** Master Degree in clinical toxicology
- 2. Final award:** Master (MSc) in clinical toxicology
- 3. Program type:** single double multiple
- 4. Responsible department:** Forensic Medicine & clinical Toxicology Department
- 5. Departments involved in the program:** Forensic Medicine & clinical, Toxicology Department, Pharmacology Department and General Internal Medicine Department
- 6. Program duration:** 4 semester (2 years)
- 7. Number of program courses:** Five
- 8. Coordinators:** Prof. Dr. Jakleen Fakry and Lecturer. Mennatallah Mahmoud Ahmed
- 9. External evaluators:** Prof. Dr. Shereen Salah-eldin Galab
- 10. Program management team:**
Lecturer. Asmaa Mohammed Heshmat
Lecturer. Rana Adel Ammar
Lecturer. Mennatallah Mahmoud Ahmed
Assistant Lecturer. Radwa Abdel-Raouf
Assistant Lecturer. Alaa Abdel-Moaz
Assistant Lecturer. Aya Gamal Ramadan

B- Professional information:

1. Program aims:

Graduate of Master Degree in clinical toxicology
The candidate should be able to:

1.1. Provide the postgraduate with scientific knowledge that essential for the practice of Clinical Toxicology according to the international standards and with basic skills necessary for proper management (diagnosis and treatment) of intoxicated patients including diagnostic, problem solving and decision-making skills.

1.2 Enable the postgraduates to know the ethical principles related to medical practice and allow them for active participation in community needs assessment and problems solving.

1.3. Develop the learning abilities of the candidates that necessary for continuous medical education and upgrading research interest and abilities.

2. Intended Learning Outcomes (ILOs):

(a) Knowledge and understanding:

By the end of the study of master program in Clinical Toxicology the candidate should be able to:

- a.1. Define the basics of general toxicology.
- a.2. Define the basics of systemic toxicology.
- a.3. Define the basics of specific toxicology.
- a.4. Identify the mechanism of toxicity by different poisons.
- a.5. State the clinical picture and complications of intoxication by different poisons on the different body systems.
- a.6. State differential diagnosis of toxins.
- a.7. Identify the treatment of intoxication by different poisons.
- a.8. State scientific development in the field of clinical toxicology.
- a.9. State the mutual influence between professional practice and its impacts on the environment.
- a.10. Identify the ethical and legal principles of professional practice in the field of clinical toxicology.
- a.11. Understand the principles of quality in professional practice in the field of clinical toxicology.
- a.12. Understand the basics and ethics of scientific research.

(b) Intellectual skills:

By the end of master program in Clinical Toxicology the candidate should be able to:

- b.1. Analyze data acquired through history taking to reach a provisional diagnosis for cases.
- b.2. Distinguish different diagnostic alternatives the ones that help reaching a final diagnosis without burden on the patient or waste the time and money of the department.
- b.3. Analyze the knowledge for Professional problems' solving.
- b.4. Recognize a research study and / or design a scientific study on a research problem.
- b.5. Integrate risk in professional practices in the field of clinical toxicology.
- b.6. Design a Plan for the development of performance in the field of clinical toxicology.

- b.7. Operate causes of misdiagnosis of cases and how to make the right decision.
- b.8. Analyze researches and issues related to clinical toxicology.

Skills:

(c) Professional and practical skills:

By the end of the study of master program in Clinical Toxicology the candidate should be able to:

- c.1. Use gastric lavage.
- c.2. Use endotracheal intubation.
- c.3. Prepare the patient to mechanical ventilator.
- c.4. Use syringe pump and infusion pump.
- c.5. Write medical report.

(d) General and transferable skills:

By the end of the study of master program in Clinical Toxicology the candidate should be able to:

- d.1. Compare effectively by its different types.
- d.2. Use information technology to serve the development of professional practice.
- d.3. Modify himself and be aware of personal learning needs.
- d.4. Use different sources to obtain information and knowledge.
- d.5. Design rules and indicators for assessing the performance of others.
- d.6. Design a team, and team's leadership in various professional contexts.
- d.7. Plan for time efficiently.
- d.8. Modify himself continuously.

3. Program Academic Reference Standards:

- Faculty of medicine, Minia University adopted the general national academic reference standards provided by the national authority for quality assurance and accreditation of education (NAQAAE) for all postgraduate programs. (Faculty council Degree No.6854, in its session No.177 Dated: 18\5\2009).
- Faculty of medicine, Minia University has developed the academic standards (ARS) for Master (MSc) program and approved in faculty Council decree No.7528, in its session No.191, dated: 15\3\2010) and it was updated with faculty council. (Dated: 20/2/2023). **{Annex 1}**.
- Then forensic medicine & clinical toxicology department has developed the intended learning outcomes (ILOs) for Master (MSc) program specifications in Clinical Toxicology and the Date of program specifications 1st approval by department council. (13\5\2013) and it was updated with department council. (Dated: 5/3/2023) **{Annex2}**.

4. Program External References

- External reference (Benchmark): **The Cardiff University Postgraduate Diploma in Medical Toxicology, United Kingdom.**

<https://www.cardiff.ac.uk/study/postgraduate/taught/courses/course/medical-toxicology-msc-part-time>.

- Matrices: Comparison between the intended learning outcomes (ILOs) of the Faculty of Medicine Minia university and postgraduate Diploma in Medical Toxicology that of the University of Cardiff. {Annex 3}.

5. Program structure:

Program duration: 4 semester (2 years).

Subject	Hour/week		
	Lectures	Practical	Clinical
First part (≥6 months)			
General & Systemic toxicology	5		4
Pharmacology	2	2	
Internal medicine	4		2
Medical ethics	2	1	
Thesis			
Second part (≥18 months)			
Specific toxicology	2		2

- Basic sciences (compulsory) courses: Two Percentage: 25%.
- Basic sciences course: one
- Specific courses related to the specialty: Two. Percentage: 75%.
- Training programs and workshops, field visits, seminars & other scientific activities: Distributed along the whole program.

6. Program courses

Number of courses: Five courses

N.B. {Courses' specifications are present in **Annex 4**} & {Correlations of Program ILOs with courses are present in **Annex 5**}.

Course Title	Total No. of hours	No. of hours			Program ILOs Covered
		Lect	Clinical/ Practical	Tutorial	
FIRST PART (Level of course):					
<u>I- General & Systemic toxicology:</u>	218	120	96	2	a1,a4,a5,a6,a7,a8, a9,a10,a11 b1,b2,b3,b5,b6,b7, c1,c3,c4,c5
<u>II- Pharmacology:</u>	96	48	48		a1,a4,a5,a6,a9,b4,b7,b8,c1,c3,c4,c5
<u>III-Internal medicine:</u>	144	96	48		a9,b4,b7,b8,c1
<u>IV-Medical ethics:</u>	45	30	15		a10,a11,a12,b7,c5
Training programs and workshops, field visits, seminars& other scientific activities	Continuous				d1,d2,d3,d4,d5,d6, d7,d8
SECOND PART (Level of course):					
<u>Specific Toxicology:</u>	208	104	104		a1,a4,a5,a6,a7, a8,a9, a10 a11, a12 b1,b2,b3, b5,b6, b7,b8,c1,c2,c3,c4,c5
Training programs and workshops, field visits, seminars& other scientific activities	Continuous				d1,d2, d3,d4, d5,d6,d7,d8

7. program admission requirements:

1. General requirements:

A. Candidates should have either:

1. MBBCH degree from any Egyptian faculty of medicine or
2. Equivalent degree from medical schools abroad approved by the ministry of higher education

B. Candidate should complete the house office training year.

C. Follows postgraduate regulatory rules of Faculty of medicine, Minia University.

2. Specific requirements:

A. Candidates graduated from Egyptian universities should "Good Rank" in their final year/cumulative year's examination and grade "Good Rank "in Forensic medicine and Clinical Toxicology course too.

B. Candidate should know how to speak and write English well.

C. Candidate should have computer skills.

8. Regulations for progression and program completion

Duration of program is 4 semesters (2years), starting from registration till the second part exam; divided to:

First Part: (≥ 6 months=1 semester):

- All courses as specified in the internal bylaw
 - At least six months after registration should pass before the student can ask for examination in the 1st part.
 - Two sets of exams: 1st in April — 2nd in October.
 - Written exam 3 hrs in general & systemic toxicology and Pharmacology + oral + clinical exam,
 - Written exam 3 hrs in internal medicine + oral exam+ clinical exam,
 - Written exam 3 hrs in medical ethics + oral exam+ practical exam.
- For the student to pass the first part exam, a score of at least 60% in each curriculum is needed (with at least 40% in the written exam). Those who fail in one curriculum need to re-exam it only.

Thesis/essay:

- Start after at least 6 month from registration and should be completed, and accepted at least after passing the 1st part examination and at least one month before allowing to enter 2nd part final exam.
- Accepting the thesis occurs after acceptance and\ or publishing one thesis-based paper in local or international journal and this is enough to pass this part.

Second Part: (≥ 18 months=3 semesters):

- Program related specialized Courses.
 - At least 18 months after passing the 1st part should pass before the student can ask for examination in the 2nd part.

- Two sets of exams: 1st in April— 2nd in October.

- Two written exams each one 3 hrs in clinical toxicology + oral + clinical exam,

For the student to pass the first part exam, a score of at least 60% in each curriculum is needed (with at least 40% in the written exam). Those who fail in one curriculum need to re-exam it only.

For both parts, fulfillment of the of log book.

9. Evaluation of program intended learning outcomes:

Evaluator (By whom)	Method/tool	Sample
1. Senior students (Students of last year)	Questionnaires	Attached to the file
2. Graduates (Alumni)	Questionnaires	Attached to the file
3. Stakeholders	Meeting Questionnaires	Attached to the file Attached to the file
4. External & Internal evaluators and external examiners	Reports	Attached to the file
5. Quality Assurance Unit	Reports Questionnaires Site visits	Attached to the file Attached to the file Attached to the file
6. Exams results	Results analysis Report	Attached to the file

10- Teaching and learning methods:

1- Hours of lectures per week throughout the course.

2-Hours of practical and clinical training and demonstration weekly throughout the course (case based discussion).

3-Self training activities such as use of internet and multimedia.

4- Regular weekly seminars, presentations and assignments.

5-Training courses & workshops.

6-Thesis discussion.

7-Conference attendance

8- Movie based learning

Teaching and learning methods	The assessed ILOs
<ul style="list-style-type: none"> Lectures 	A1,A2, A3,A4,A6, A7,A8,A9,A10,A11,A12 B1,B2,B3,B4,B5,B6,B8
<ul style="list-style-type: none"> Practical and clinical sessions 	C1,C2,C3,C4,C5
<ul style="list-style-type: none"> Self-training activities Seminars, presentations and assignments. Training courses & workshops. Thesis discussion. Conference attendance Movie based learning 	D1,D2,D3,D4,D5,D6,D7,D8

11- Methods of student assessment:

Method of assessment	The assessed ILOs
1. Written Exams: <ul style="list-style-type: none"> Short essay MCQs Problem solving 	A1,A2, A3,A4,A6, A7,A8,A9,A10,A11,A12 B1,B2,B3,B4,B5,B6,B8
2. Practical/Clinical Exams (short and long case sheet)	C1,C2,C3,C4,C5
3. Oral Exams	A1,A2, A3,A4,A6, A7,A8,A9,A10,A11,A12 B1,B2,B3,B4,B5,B6,B8

Weighing of assessment:

It is mandatory to pass all the papers of written exams separately

Course	written	oral	Clinical	Practical	Total
General & Systemic toxicology and Pharmacology	60	30	30	30	150
Internal medicine	60	30	60		150
Medical ethics	40	30		30	100
Specific Toxicology	280 (40%)	140	140	140	700

	1st paper 140 2nd paper 140				
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Program Coordinators:

1. Prof. Dr. Jakleen Fakry
2. Lecturer. Mennatallah Mahmoud Ahmed

Head of Department:

Professor / Irene Atef Fawzy



Date of program specifications 1st approval by department council: 13/5/2013

Date of last update & approval by department council: 5/3/2023

Annex (1): Comparison between National Academic Quality Assurance & Accreditation (NAQAAE) General Academic Reference Standards (GARS) and Faculty Academic Reference Standards (ARS)

NAQAAE General Academic Reference Standards “GARS” for Master Programs	Master Program - faculty of medicine- Minia University
<p>١. مواصفات الخريج: خريج برنامج الماجستير في أي تخصص يجب أن يكون قادرا على</p>	<p>1. Graduate Attributes: Graduate of master (MSC) program should be able to:</p>
<p>1.1. إجادة تطبيق أساسيات ومنهجيات البحث العلمي واستخدام أدواته المختلفة.</p>	<p>1.1. Understanding and applying of basics of research method and research tools.</p>
<p>2.1. تطبيق المنهج التحليلي واستخدامه في مجال التخصص</p>	<p>2.1. Critically analyze, evaluate, and effectively communicate findings, theories, and methods.</p>
<p>3.1. تطبيق المعارف المتخصصة ودمجها مع المعارف ذات العلاقة في ممارسته المهنية.</p>	<p>3.1. Apply integrated professional and general knowledge in his scholarly field and at the interface between different fields.</p>
<p>4.1. إظهار وعيا بالمشاكل الجارية والرؤى الحديثة في مجال التخصص.</p>	<p>4.1. Demonstrate awareness of community health needs related to the field of specialization by understanding the beneficial interaction with the society to improve quality of life.</p>
<p>5.1. تحديد المشكلات المهنية وإيجاد حلول لها.</p>	<p>5.1. Demonstrating proficiency, required to solve current complex problems in his scholarly field.</p>
<p>6.1. إتقان نطاق مناسب من المهارات المهنية المتخصصة واستخدام الوسائل التكنولوجية المناسبة بما يخدم ممارسته المهنية.</p>	<p>6.1. Master a variety of technical skills in his scholarly field and expert relevant equipment, technology, and software.</p>
<p>7.1. لتواصل بفاعلية والقدرة على قيادة فرق العمل.</p>	<p>7.1. Gain leadership skills and be able to communicate efficiently with colleagues and get the best results.</p>

8.1. اتخاذ القرار في سياقات مهنية مختلفة.	8.1. Take professional situational decisions and logically support them.
9.1. توظيف الموارد المتاحة بما يحقق أعلى استفادة و الحفاظ عليها	9.1. Optimal use of available resources to achieve research or best patient health care and ensure its maintenance.
10.1. إظهار الوعي بدوره في تنمية المجتمع والحفاظ على البيئة في ضوء المتغيرات.	10.1. Demonstrate awareness of its role in community health development.
11.1. التصرف بما يعكس الالتزام بالنزاهة والمصداقية والالتزام بقواعد المهنة.	11.1. Exhibit ethical behavior that reflect commitment to the code of practice.
12.1. تنمية ذاته أكاديميا ومهنيا و قادرا علي التعلم المستمر.	12.1. Demonstrate the ability to sustain a lifelong personal and professional growth.
٢.المعايير القياسية العامة: NAQAAE General Academic Reference Standards “GARS” for Master Programs	2. Faculty Academic Reference Standards (ARS) for Master Program
٢,١. المعرفة والفهم: بانتهاء دراسة برنامج الماجستير يجب أن يكون الخريج قادرا علي الفهم والدراسة بكل من:	2.1. Knowledge & Understanding: Upon completion of the Master Program in Clinical Toxicology , the graduate should have sufficient knowledge and understanding of:
٢,١,١. النظريات والأساسيات والحديث من المعارف في مجال التخصص والمجالات ذات العلاقة	2.1.1. Understand the scientific basis and modern knowledge in the field of specialization and related medical sciences.
٢,١,٢. التأثير المتبادل بين الممارسة المهنية وانعكاسها علي البيئة	2.1.2. The mutual influence of professional practice on work environment, working conditions, and job characteristics.
٢,١,٣. التطورات العلمية في مجال التخصص	2.1.3. Scientific developments in the field of specialization.
٢,١,٤. المبادئ الأخلاقية والقانونية للممارسة المهنية في مجال التخصص	2.1.4. Recognize basics of medico-legal aspects of practice, malpractice and avoid common medical errors.
٢,١,٥. مبادئ وأساسيات الجودة في الممارسة المهنية في مجال التخصص	2.1.5. Quality principles in the scholarly field.

٦, ١, ٢. أساسيات وأخلاقيات البحث العلمي	2.1.6. Basis of research methodology and medical ethics.
2.2. المهارات الذهنية: بانتهاؤ دراسة برنامج الماجستير يجب أن يكون الخريج قادرا على:	2.2. Intellectual Skills: Upon completion of the Master Program in Clinical Toxicology , the graduate should be able to:
2.2.1. تحليل وتقييم المعلومات في مجال التخصص والقياس عليها لحل المشاكل	2.2.1. Use judgment skills for analytical and critical problem solving.
2.2.2. حل المشاكل المتخصصة مع عدم توافر بعض المعطيات	2.2.2. Capable of integrating knowledge and dealing with complex subjects to solve problems.
2.2.3. الربط بين المعارف المختلفة لحل المشاكل المهنية	2.2.3. Be capable of integrating research results and/or results of history, physical and laboratory test findings to solve a research or a clinical problem.
2.2.4. إجراء دراسة بحثية و/أو كتابة دراسة علمية منهجية حول مشكلة بحثية	2.2.4. Effectively apply research methods and carrying out a medical research thesis.
2.2.5. تقييم المخاطر في الممارسات المهنية في مجال التخصص	2.2.5. Be aware of risk management principles, and patient safety.
2.2.6. التخطيط لتطوير الأداء في مجال التخصص	2.2.6. Establish goals, commitments, and strategies for improved professional performance in the field of specialty.
2.2.7. اتخاذ القرارات المهنية في سياقات مهنية متنوعة	2.2.7. Take professional situational decisions and logically support them.
3.2. المهارات المهنية: بانتهاؤ دراسة برنامج الماجستير يجب أن يكون الخريج قادرا على:	3.2. Professional Skills: Upon completion of the Master Program in Clinical Toxicology , the graduate must be able to:
3.2.1. إتقان المهارات المهنية الأساسية والحديثة في مجال التخصص	3.2.1. Master the basic and some advanced professional skills in his scholarly field.
٢, ٣. كتابة و تقييم التقارير المهني.	3.2.2. Write and evaluate medical or scientific reports.

٣,٣,٣ تقييم الطرق والأدوات القائمة في مجال التخصص	3.2.3. Assess and evaluate technical tools during research.
4.2. المهارات العامة والمنتقلة : بإنهاء دراسة برنامج الماجستير يجب أن يكون الخريج قادرا على:	4.2. General and transferable skills Upon completion of the Master Program in Clinical Toxicology , the graduate should be able to:
٤,٢,١. التواصل الفعال بأنواعه المختلفة	4.2.1. Communicate effectively using a written medical record, electronic medical record, or other digital technology.
٤,٢,٢. استخدام تكنولوجيا المعلومات بما يخدم الممارسة المهنية	4.2.2. Use of information technology (computer to create, process, store, secure and exchange electronic data) in the field of medical practice.
4.2.3. لتقييم الذاتي وتحديد احتياجاته التعليمية الشخصية	4.2.3. Assess himself and identify personal learning needs.
4.2.4. استخدام المصادر المختلفة للحصول على المعلومات والمعارف	4.2.4. Use various sources for information (physical and digital sources).
4.3.5. وضع قواعد ومؤشرات تقييم أداء الآخرين	4.2.5. Setting indicators for evaluating the performance of others.
4.2.6. العمل في فريق، وقيادة فرق في سياقات مهنية مختلفة	4.2.6. Work in a team, and Apply leadership skills to enhance team functioning, the learning environment, and/or the health care delivery system.
4.2.7. إدارة الوقت بكفاءة	4.2.7. Manage time efficiently.
٤,٢,٨. التعلم الذاتي والمستمر	4.2.8. Demonstrate skills of self-learning and lifelong learning needs of medical profession.

Date of last update & approval by department council: 5/3/2023

ANNEX (2): ARS VS. MSc PROGRAM of Clinical Toxicology

<p align="center">٢. المعايير القياسية العامة: NAQAAE General Academic Reference Standards “GARS” for Master Programs</p>	<p>2. Faculty Academic Reference Standards (ARS) for Master Program</p>	<p>MSc Program of Clinical Toxicology</p>
<p align="center">٢,١. المعرفة والفهم: بانتهاؤ دراسة برنامج الماجستير يجب أن يكون الخريج قادرا علي الفهم والدرابة بكل من:</p>	<p>2.1. Knowledge & Understanding: Upon completion of the Master Program, the graduate should have sufficient knowledge and understanding of:</p>	<p>2.1. Knowledge and Understanding Upon completion of the master Program (MSc) in Clinical Toxicology the graduate should be able to:</p>
<p align="center">٢,١,١. النظريات والأساسيات والحديث من المعارف في مجال التخصص والمجالات ذات العلاقة</p>	<p>2.1.1. Understand the scientific basis and modern knowledge in the field of specialization and related medical sciences</p>	<p>a.1. Define the basics of general toxicology. a.2. Define the basics of systemic toxicology. a.3. Define the basics of specific toxicology.</p>
<p align="center">٢,١,٢. التأثير المتبادل بين الممارسة المهنية وانعكاسها على البيئة</p>	<p>2.1.2. The mutual influence of professional practice on work environment, working conditions, and job characteristics.</p>	<p>a.9. State the mutual influence between professional practice and its impacts on the environment.</p>
<p align="center">٢,١,٣. التطورات العلمية في مجال التخصص</p>	<p>2.1.3. Scientific developments in the field of specialization</p>	<p>a.8. State scientific development in the field of clinical toxicology. a.11. Understand the principles of quality in professional practice in the field of clinical toxicology.</p>
<p align="center">٢,١,٤. المبادئ الأخلاقية والقانونية للممارسة المهنية في مجال التخصص</p>	<p>2.1.4. Recognize basics of medico-legal aspects of practice, malpractice and avoid common medical errors</p>	<p>a.10. Identify the ethical and legal principles of professional practice in the field of clinical toxicology.</p>
<p align="center">٢,١,٥. مبادئ وأساسيات الجودة في الممارسة المهنية في مجال التخصص</p>	<p>2.1.5. Quality principles in the scholarly field</p>	<p>a.4. Identify the mechanism of toxicity by different poisons. a.5. State the clinical picture and complications of intoxication by different poisons on the different body systems. a.6. State differential diagnosis of toxins.</p>

		a.7. Identify the treatment of intoxication by different poisons.
٢,١,٦. أساسيات وأخلاقيات البحث العلمي	2.1.6. Basis of research methodology and medical ethics.	a.12. Understand the basics and ethics of scientific research.
2.2. المهارات الذهنية: بانتهاؤ دراسة برنامج الماجستير يجب أن يكون الخريج قادرا على:	2.2. Intellectual Skills: Upon completion of the master program, the graduate should be able to:	2.2. Intellectual skills: Upon completion of the master program (MSc) in Clinical Toxicology, the graduate must be able to:
2.2.1. تحليل وتقييم المعلومات في مجال التخصص والقياس عليها لحل المشاكل	2.2.1. Use judgement skills for analytical and critical problem solving	b.1. Analyze data acquired through history taking to reach a provisional diagnosis for cases. b.3. Analyze the knowledge for Professional problems' solving.
2.2.2. حل المشاكل المتخصصة مع عدم توافر بعض المعطيات	2.2.2. Capable of integrating knowledge and dealing with complex subjects to solve problems	b.7. Operate causes of misdiagnosis of cases and how to make the right decision.
2.2.3 الربط بين المعارف المختلفة لحل المشاكل المهنية	2.2.3. Be capable of integrating research results and/or results of history, physical and laboratory test findings to solve research or a clinical problem.	b.6. Design a Plan for the development of performance in the field of clinical toxicology.
2.2.4. إجراء دراسة بحثية و/أو كتابة دراسة علمية منهجية حول مشكلة بحثية	2.2.4. Effectively apply research methods and carrying out a medical research thesis	b.4. Recognize a research study and / or design a scientific study on a research problem. b.8. Analyze researches and issues related to clinical toxicology.
2.2.5. تقييم المخاطر في الممارسات المهنية في مجال التخصص	2.2.5. Be aware of risk management principles, and patient safety.	b.5. Integrate risk in professional practices in the field of clinical toxicology.
2.2.6. التخطيط لتطوير الأداء في مجال التخصص	2.2.6. Establish goals, commitments, and strategies for improved professional performance in the field of specialty	b.2. Distinguish different diagnostic alternatives the ones that help reaching a final diagnosis without burden on the patient or waste the time and money of the department.
2.2.7. اتخاذ القرارات المهنية في سياقات مهنية متنوعة.	2.2.7. Take professional situational decisions and logically support them.	b.6. Design a Plan for the development of performance in the field of clinical toxicology.

<p>3.2. المهارات المهنية: بانتهاء دراسة برنامج الماجستير يجب أن يكون الخريج قادرا على:</p>	<p>3.2. Professional Skills: Upon completion of the master program the graduate must be able to:</p>	<p>2.3. (c) Professional and practical skills Upon completion of the master program (MSc) in Clinical Toxicology, the graduate must be able to:</p>
<p>3.2.1. إتقان المهارات المهنية الأساسية والحديثة في مجال التخصص</p>	<p>3.2.1. Master the basic and some advanced professional skills in his scholarly field.</p>	<p>c.1. Use gastric lavage. c.2. Use endotracheal intubation. c.3. Prepare the patient to mechanical ventilator.</p>
<p>٣,٢,٢ كتابة و تقييم التقارير المهني.</p>	<p>3.2.2. Write and evaluate medical or scientific reports</p>	<p>c.5. Write medical report.</p>
<p>٣,٣,٣ تقييم الطرق والأدوات القائمة في مجال التخصص</p>	<p>3.2.3. Assess and evaluate technical tools during research</p>	<p>c.1. Use gastric lavage. c.2. Use endotracheal intubation. c.3. Prepare the patient to mechanical ventilator. c.4. Use syringe pump and infusion pump.</p>
<p>4.2. المهارات العامة والمنتقلة: بانتهاء دراسة برنامج الماجستير يجب أن يكون الخريج قادرا على:</p>	<p>4.2. General and transferable skills Upon completion of the master program the graduate should be able to:</p>	<p>4.2. (d) General and transferable skills Upon completion of the master program (MSc) in Clinical Toxicology, the graduate must be able to:</p>
<p>٤,٢,١. التواصل الفعال بأنواعه المختلفة</p>	<p>4.2.1. Communicate effectively using a written medical record, electronic medical record, or other digital technology.</p>	<p>d.1. Compare effectively by its different types.</p>
<p>٤,٢,٢. استخدام تكنولوجيا المعلومات بما يخدم الممارسة المهنية</p>	<p>4.2.2. Use of information technology (computer to create, process, store, secure and exchange electronic data) in the field of medical practice.</p>	<p>d.2. Use information technology to serve the development of professional practice.</p>
<p>4.2.3. لتقييم الذاتي وتحديد احتياجاته التعليمية الشخصية</p>	<p>4.2.3. Assess himself and identify personal learning needs</p>	<p>d.3. Modify himself and be aware of personal learning needs.</p>
<p>4.2.4. استخدام المصادر المختلفة للحصول</p>	<p>4.2.4. Use various sources for</p>	<p>d.4. Use different sources to obtain</p>

على المعلومات والمعارف	information (physical and digital sources).	information and knowledge.
4.3.5. وضع قواعد ومؤشرات تقييم أداء الآخرين	4.2.5. Setting indicators for evaluating the performance of others	d.5. Design rules and indicators for assessing the performance of others.
4.2.6. العمل في فريق، وقيادة فرق في سياقات مهنية مختلفة	4.2.6. Work in a team, and Apply leadership skills to enhance team functioning, the learning environment, and/or the health care delivery system	d.6. Design a team, and team's leadership in various professional contexts.
4.2.7. إدارة الوقت بكفاءة	4.2.7. Manage time efficiently	d.7. Plan for time efficiently.
٤,٢,٨. التعلم الذاتي والمستمر	4.2.8. Demonstrate skills of self-learning and lifelong learning needs of medical profession.	d.8. Modify himself continuously.

Date of last update & approval by department council: 5/3/2023

- ANNEX (3): Comparison between the intended learning outcomes (ILOs) of the Faculty of Medicine Minia university and postgraduate Diploma in Medical Toxicology that of the University of Cardiff.

Postgraduate Diploma in Medical Toxicology, Cardiff University	ILOs in Master and clinical Toxicology programme, Faculty of medicine, Minia University	Approximate achievable ILOs
a) General Toxicology Module:	a1,a4,a5,a6,a7, a9,a11 b1,b2,b7	60 %
b) Specific Toxicology Module:	a1,a4,a5,a6,a7, ,a9, a11, a12 b1,b2,b3, b5,b6, b7	80%
c) Pharmacology module	a1,a4,a5,a6,a9,b4,b7,b8	70%

Date of last update & approval by department council: 5/3/2023

Annex 5

Master Degree (MSC) in Clinical Toxicology	مسمى البرنامج
CT200	كود البرنامج

.....المنيا..... : جامعة/أكاديمية

.....الطب البشري..... : كلية / معهد

.....الطب الشرعي والسموم
.....الكلينكية..... : قسم

A- Matrix of Coverage of MSC Program ILOs By Course

Courses (List of courses in 1 st part	Program Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D
I- General & systemic toxicology	A1,A4,A5,A6,A7,A8, A9,A10,A11	B1,B2,B3, B5,B6,B7	C1,C2,C3,C5	D1,D2, D3,D4,D5,D6,D7,D8
II-Pharmacology	A1,A4,A5,A6,A9,	B4,B7,B8,	C1	D3,D8
III-Internal medicine	A9	B4,B7,B8	C1,C4	D3,D8
IV- Medical ethics	A10 A11 A12	B7	C5	-
Research (Thesis)	A1,A4,A5,A6,A7,A8,A9, A10 A11,A12	B1,B2,B3, B5,B6, B7,B8	C1,C2,C3, C4, C5	D1,D2, D3,D4, D5 D6,D7,D8
SECOND PART Specific Toxicology	A1,A4,A5,A6,A7,A8,A9, A10 A11,A12	B1,B2,B3, B5,B6, B7,B8	C1,C2,C3	D1,D2, D3,D4, D5 D6,D7,D8

Date of last update & approval by department council: 5/3/2023

B- Matrix of Coverage of Program ILOs by Methods of Teaching & Learning

Methods of Teaching & Learning	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D
Lecture	A1,A4,A5,A6,A7, A8,A9, A10 A11,A12	B1,B2,B3, B5,B6, B7,B8,	-	-
Practical	-	-	C1,C2,C3,C5	-
Clinical (Including grand rounds)	-	-	C1,C2,C3,C5	-
Presentation/seminar	-	-	-	D1,D2,D3,D4,D 5,D6,D7,D8
Journal club	-	-	-	D1,D2,D3,D4
Thesis discussion	-	-	-	D1,D2,D3,D4,D 5,D6,D7,D8
Training courses & workshops	-	-	-	D1,D2,D3,D4,D 5,D6,D7,D8
Movie based learning	-	-	-	D1,D2,D3,D4,D 5,D6

Date of last update & approval by department council: 5/3/2023

C- Matrix of Coverage of Program ILOs by Methods of Assessment

Methods of Assessment	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D
Written exam	A1,A4,A5,A6,A7, A8,A9, A10 A11,A12	B1,B2,B3, B5,B6, B7,B8,	-	-
Practical exam	-	-	C1,C2,C3,C5	-
Clinical exam	-	-	C1,C2,C3,C5	-
Oral Exam	A1,A4,A5,A6,A7, A8,A9, A10 A11,A12	B1,B2,B3, B5,B6, B7,B8,	-	-

Program Coordinators:

1. Prof. Dr. Jakleen Fakry
2. Lecturer. Mennatallah Mahmoud Ahmed

Head of Department:

Professor / Irene Atef Fawzy



Date of last update & approval by department council: 5/3/2023

Course Specifications (Master Degree (MSc) of Clinical Toxicology)

Course Specification of general & systemic toxicology in master of Clinical Toxicology (First part) 2022-2023

University: Minia University

Faculty: Faculty of Medicine

Department offering the course: Forensic Medicine & Clinical Toxicology Department.

Course Specifications:

It is a part of the Postgraduate (MSC) Program for the Forensic Medicine & Clinical Toxicology Department.

Program (s) on which the course is given: First part MSC of Clinical Toxicology.

Major or minor element of programs: Toxicology, Toxic agents, first care management.

1- Basic Course Information		
<ul style="list-style-type: none"> Academic Year/level: 1st part MSc, Clinical Toxicology 	<ul style="list-style-type: none"> Course Title: General & Systemic Toxicology in Master degree of clinical toxicology 	<ul style="list-style-type: none"> Code: CT200
<ul style="list-style-type: none"> Number of teaching hours: <ul style="list-style-type: none"> - Lectures: Total of 120 hours, 2 hours/week - Practical/clinical: Total of 96 hours, 4hours/week 		
<p>2- Overall Aims of the course</p>	<p><i>The aim of this course is to provide the postgraduate student with the medical knowledge and skills essential for the practice of specialty and necessary to gain further training and practice in the field of Clinical Toxicology through providing professional knowledge about general & systemic toxicology.</i></p>	
<p>3- Intended learning outcomes of course (ILOs):</p> <p><i>Upon completion of the course, the postgraduate student should be able to:</i></p>		
<p>A- Knowledge and Understanding</p>	<p>a1. Recognize adequate knowledge about basics of general & systemic toxicology.</p>	

	<p>a2. Identify the treatment of intoxication by different poisons.</p> <p>a3. Understand the principles of quality in professional practice in the field of clinical toxicology.</p> <p>a4. Understand the ethical and scientific principles of medical research.</p>
B- Intellectual Skills	<p>b1. Recognize research studies, and/or design a scientific study on a research problem.</p> <p>b2. Conclude toxicological emergencies and find solutions.</p> <p>b3. Identify research and issues related to the toxicological emergency.</p> <p>b4. Design a Plan for the development of performance in the field of clinical toxicology.</p>
C- Professional and Practical Skills	<p>c1. Apply the basic and modern professional skills in the area of clinical toxicology.</p>
D- General and transferable Skills	<p>d1. Modify himself and be aware of personal learning needs.</p> <p>d2. Design a Plan for the development of performance in the field of clinical toxicology.</p> <p>d3. Practice himself continuously</p>

4- Course Contents

Topic	Lecture No. of hours	Practical/Clinical No. of hours	Total No. of hours
General toxicology			
-Coma	4	5	9
-Care of comatose patients	2	5	7
- Convulsion	4	5	9
- Shock	4	5	9
-Antidotes	६	३	९

-Toxidromes	4	5	9
-Toxicokinetics	३	-	३
-Toxicodynamics	३	-	३
-Management of acute intoxicated patients	7	10	17
-Drug interactions	4	2	6
-Drug abuse	०	-	०
-Teratogenicity	4	-	4
-Carcinogenicity	4	-	4
-Genotoxicity	4	-	4
-Geriatric toxicology	4	-	4
-Pediatric toxicology	4	-	३
Systemic toxicology			
-Hepatotoxicity	5	5	10
-Haemotoxicity	5	5	10
-Cardiotoxicity	5	5	10
-Neurotoxicity	4	5	9
-Nephrotoxicity	5	4	9
-Respiratory toxicity	5	5	10
-Dermatotoxicity	4	4	8
-Ophthalmotoxicity	3	4	7
-ENT toxicity	3	5	8
-GIT toxicity	4	4	8
-Immunotoxicity	5	-	5

-Acid-base disorders	5	6	11
-H ₂ O & electrolyte disorders	3	4	7
Total	12	16	28
5- Teaching and Learning Methods	5.1- Lecture: live, online, and pre-recorded video lectures. 5.2- Practical lessons and clinical grand rounds. 5.3- Seminars. 5.4- Searches in computers (assignments) so the students can empower and assess the general and transferable skills. 5.5- Movie based learning.		
6- Student Assessment Methods - Assessment Schedule (Timing of Each Method of Assessment)	6.1- log book 6.2- Written exams: Short essay: to assess knowledge Problem solving: to Assess intellectual skills MCQ: to assess knowledge and intellectual skills 6.3- Practical Exams (short and long case sheet): to assess practical and professional skills 6.4- Clinical Exams (short and long case sheet): to assess practical and professional skills 6.5- Oral Exams: to assess knowledge, understanding, attitude, and communication. Assessment 1: Final written exam week: 24-28 Assessment 2: Oral exam week: 24-28 Assessment 3: Practical and clinical exams week: 24-28		
7- Weighting of Each Method of Assessment	Written exam		30
	Oral exam		15
	Practical examination		15
	Clinical Examination		15
	Total		75
8- List of References			
A. Course Notes/handouts	Department notes, lectures and handouts.		
	Logbook		

B. Essential Books	Nelson L., Hoffman R., Howland M. N., et al. (2019): Goldfrank's Toxicologic Emergencies (11th ed.), New York, USA: McGraw-Hill Education / Medical, 2096 pages. ISBN: 9781259859618.
C. Recommended Text Books	Viccellio P. (1993): Handbook of Medical Toxicology, Boston, USA: Little Brown & Co., 812 pages. ISBN: 9780316902472.
D. Periodicals, websites	1- www.medscape.com 2- www.emedicine.com 3- Journal of Toxicology

9- Facilities required for teaching and learning


1. Clinical Toxicology research laboratory equipped with skill tools.
2. Classrooms for theoretical lectures and tutorials.

Course coordinators:

Prof. Dr. Jakleen Fakry
Assistant Prof. Dr. Mohammed Ismail
Lecturer. Mennatallah Mahmoud Ahmed

Head of Department:

Professor Dr. / Irene Atef Fawzy



Date of the last update & approval by department Council: 5/3/2023

Matrix of Course ILOs vs. List of contents

نموذج رقم (١١١)

Course Specifications of general & systemic toxicology in Master Degree of Clinical Toxicology First part	مسمى المقرر
CT200	كود المقرر

جامعة/أكاديمية :
.....المنيا.....

كلية / معهد:الطب
.....البشرى.....

قسم:الطب الشرعى والسوموم
.....الأكلينكية.....

A- Matrix of Coverage of Course ILOs By Contens

Contents (List of course topics)	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D

General toxicology	A1	B3	C1	D1,D2,D3
-Coma	A1	B3	C1	D1,D2,D3
-Care of comatose patients	A1	B3	C1	D1,D2,D3
- Convulsion	A1	B3	C1	D1,D2,D3
- Shock	A1	B2	C1	D1,D2,D3
-Antidotes	A1	B3	C1	D1,D2,D3
-Toxidromes	A1	B3	C1	D1,D2,D3
-Toxicokinetics	A1	B3	C1	D1,D2,D3
-Toxicodynamics	A1	B3	C1	D1,D2,D3
-Management of acute intoxicated patients	A1	B1	C1	D1,D2,D3
-Drug interactions	A1	B3	C1	D1,D2,D3
-Drug abuse	A1,A2,A3	B1,B2,B3	C1	D1,D2,D3
-Teratogenicity	A1,A2,A3	B1,B2,B3	C1	D1,D2,D3
-Carcinogenicity	A1,A2,A3	B1,B2,B3	C1	D1,D2,D3
-Genotoxicity	A1,A2,A3	B1,B2,B3	C1	D1,D2,D3
-Geriatric toxicology	A1,A2,A3	B1,B2,B3	C1	D1,D2,D3
-Pediatric toxicology	A1,A2,A3	B1,B2,B3	C1	D1,D2,D3
Systemic toxicology	A1,A2,A3	B1,B2,B3	C1	D1,D2,D3

-Hepatotoxicity	A1,A2,A3	B1,B2,B3	C1	D1,D2,D3
-Haemotoxicity	A1,A2,A3	B1,B2,B3	C1	D1,D2,D3
-Cardiotoxicity	A1,A2,A3	B1,B2,B3	C1	D1,D2,D3
-Neurotoxicity	A1,A2,A3	B1,B2,B3	C1	D1,D2,D3
-Nephrotoxicity	A1,A2,A3	B1,B2,B3	C1	D1,D2,D3
-Respiratory toxicity	A1,A2,A3	B1,B2,B3	C1	D1,D2,D3
-Dermatotoxicity	A1,A2,A3	B1,B2,B3	C1	D1,D2,D3
-Ophthalmotoxicity	A1,A2,A3	B1,B2,B3	C1	D1,D2,D3
-ENT toxicity	A1,A2,A3	B1,B2,B3	C1	D1,D2,D3
-GIT toxicity	A1,A2,A3	B1,B2,B3	C1	D1,D2,D3
-Immunotoxicity	A1,A2,A3	B1,B2,B3	C1	D1,D2,D3
-Acid-base disorders	A1	B1,B2,B3	C1	D1,D2,D3
-H2o & electrolyte disorders	A1	B1,B2,B3	C1	D1,D2,D3

Date of the last update & approval by department Council: 5/3/2023

B- Matrix of Coverage of Course ILOs by Methods of Teaching & Learning

Methods of Teaching & Learning	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D
Lecture	A1,A2,A3,A4	B1, B2, B3,B4	-	-
Practical	-	-	C1	-
Clinical (Including grand rounds)	-	-	C1	-
Presentation/seminar	-	-	-	D1, D2, D3
Journal club	-	-	-	D1, D2, D3
Thesis discussion	-	-	-	D1, D2, D3
Training courses & workshops	-	-	-	D1, D2, D3
Movie based learning	-	-	-	D1, D2, D3

Date of the last update & approval by department Council: 5/3/2023

C- Matrix of Coverage of Course ILOs by Methods of Assessment

Methods of Assessment	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D
Written exam	A1, A2, A3, A4	B1, B2, B3, B4	-	-
Practical exam	-	-	C1	-
Clinical exam	-	-	C1	-
Oral Exam	A1, A2, A3, A4	B1, B2, B3, B4	-	-

Course coordinators:

Prof. Dr. Jakleen Fakry
 Assistant Prof. Dr. Mohammed Ismail
 Lecturer. Mennatallah Mahmoud Ahmed

Head of Department:

Professor Dr. / Irene Atef Fawzy

Date of the last update & approval by department Council: 5/3/2023



Pharmacology course specification for master degree in Clinical toxicology (First part)

University: Minia University
Faculty: Faculty of Medicine
Department: Pharmacology
Last date of approval 1/2023

1. Basic Information		
<ul style="list-style-type: none"> Academic Year/level: First Part of Master Degree 	<ul style="list-style-type: none"> Course Title: First Part of Master Degree in Clinical toxicology 	<ul style="list-style-type: none"> Code: CT 200
<ul style="list-style-type: none"> Number of teaching hours: Lectures: 23 hours; 2 hours/week Practical: 0 		
2. Overall Aims of the course	<p align="center"><i>By the end of the course the student must</i></p> <p><i>Be able to:</i></p> <ol style="list-style-type: none"> 1. Provide the postgraduate student with the medical Knowledge and skills essential for the practice of specialty and necessary to gain. 2-To understand all molecular basics and diseases. 3-To detect different molecular techniques and their 	

	<p>advanced applications.</p> <p>4-To better understand and use the research tools including internet and differentlaboratory equipment.</p> <p>5-To know retrieving the literature and understanding the evidence-basedmedicine</p> <p>6-Maintain learning abilities necessary for continuous medical education.</p> <p>7-Maintain research interest and abilities.</p>
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3. Intended learning outcomes of course (ILOs):
Upon completion of the course, the student should be able to:

<p>A. Knowledge and Understanding</p>	<p>A1. Mention the basic biochemical and physiological activities, their disturbances and how to be corrected.</p> <p>A.2 Define general pharmacokinetics as well specific properties of different groups of drugs putting into consideration age, sex and genetic-related variations that affect the response to drugs (pharmacogenetics).</p> <p>A.3 Recall general pharmacodynamics as well specific properties of different groups of drugs that include the drug's mechanism of action and pharmacological effects.</p> <p>A.4 List pharmacotherapeutics which reflects the role of drugs in prevention, diagnosis and treatment of diseases as well as prevention of conception. It includes also pathopharmacology of diseases and drugs, indications, contraindications, adverse reactions and drug interactions especially in high risk groups (extremes of age, pregnancy and lactation, liver kidney and cardiac diseases). Pharmaco-economics is included in this category.</p> <p>A.5 Memorize Systemic pharmacology which includes drugs acting on different body systems such as cardiovascular, autonomic, respiratory, gastrointestinal, endocrine, blood ,.....</p> <p>A.A.6 know the basic, and ethics of scientific research.</p> <p>A.7. List the principles of quality in professional practice in the field of therapeutics and applied pharmacology.</p> <p>A.9. Describe different environmental induced diseases</p>
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	and the pharmacological treatment of such diseases.
<p>B- Intellectual Skills</p>	<p>B.1 Develop the skills in selecting and using drugs safely and efficiently knowing their limits and the potential risks</p> <p>B.2 Develop the ability to solve medical problems arising from use of drugs and the development of resistance or tolerance encouraging them to search for alternative approaches after revising the diagnosis.</p> <p>B.3 Participate in clinical or laboratory risk management activities as a part of clinical governance.</p> <p>B.4 Present and defend his/her data in front of a panel of experts.</p> <p>B.5 Formulate management plans and alternative decisions in different situations in the field of Pharmacology.</p> <p>B.6. Assess risk in research and experimentation using new drugs and/or chemicals.</p> <p>B.7. Plan for the development of performance in the field of therapeutics and pharmacological researches.</p> <p>B.8. Assess different clinical problems and formulate pharmacological researches to solve such problems.</p> <p>B.9. Combine knowledge for Professional problems' solving.</p>
<p>C- Professional and Practical Skills</p>	<p>By the end of the study of master program in Pharmacology the candidate should be able to:</p> <p>C.1 Evaluate the need of his/her career to join the major advances in drug information</p> <p>C.2 Perform the basic lab skills essential to the course.</p> <p>C.3 Develop plans for performing experiments related to pharmacology.</p> <p>C.4 Use information technology in some of the pharmacology related situations.</p> <p>C.5 Band better understanding of the normal structure and function.</p>

D- General and transferable Skills	<p>After completing the course, the student should be able to</p> <p>D1- Perform practice-based improvement activities using a systemic methodology (share in audits and risk management activities and use logbooks).</p> <p>D3- Collect and verify data from different sources.</p> <p>D4- Analyze and interpret data.</p> <p>D5-Appraise evidence from scientific studies.</p> <p>D6- Use information technology to manage information, access on-line medical researches to support his/her own education.</p>
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4- Course Contents			
Topic	Lecture hours/week	Practical/Clinical hours/week	Total No. of hours hours/week
Pharmacokinetic variables including toxicokinetics	3	-	3
Autonomic Pharmacology	3	-	3
Pharmacology of the cardiovascular system and	2	-	2
Diuretics	1	-	1
Drugs affecting blood diseases	2	-	2
Corticosteroids	1	-	1
Nonsteroidal anti-inflammatory drugs and treatment of gout	2	-	2
Opioids	2	-	2
Sedative hypnotic drugs	2	-	2
Environmental & Occupational Toxicology	۲	-	۲

Heavy Metals	۲		۲
Management of the Poisoned Patient	۱		۱
Total	23		23
5-Teaching and Learning Methods	1-Lectures & discussions. 2-Assignments 3-Attending and participating in scientific conferences and workshops to acquire the general and transferable skills needed		
6-Teaching and Learning Methods for students with limited Capacity	Additional lectures, adjusting time and place of lectures according to their schedule and capacity		
7- Student Assessment			
A-Student Assessment Methods	<p>1- Written exam to assess the capability of the student for assimilation and application of the knowledge included in the course.</p> <p>2-Oral exam to assess the student intellectual and communication skills regarding basic knowledge and understanding of the course topics, and to help the teaching staff to evaluate the % of achievement of the intended learning outcomes of the course</p> <p>3- Practical exam to assess the student's ability to identify different methods of identification of different drug actions and interactions.</p>		
B-Assessment Schedule (Timing of Each	Assessment 1: <i>one written exam by the end of the course</i>		

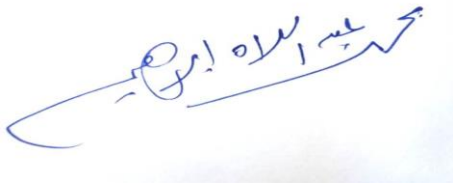
Method of Assessment)	<p>Assessment 2: <i>Oral exam, after the written exam</i></p> <p>Assessment 3: <i>Practical exam</i></p> <p>Formative only assessment: <i>log book.</i></p>
8-Weighting of Each Method of Assessment	<p>Written examination: 30 marks 40%</p> <p>Oral and practical examination: 45 marks 60%</p> <p>Total: 75 marks 100%</p>
9- List of References	
A. Course Notes/handouts	Lecture notes prepared by the staff members in the department.
B. Essential Books	- Principles of pharmacology the pathophysiologic basis of drug therapy
C. Recommended Text Books	<p>Goodman & Gilman, 14th edition</p> <p>- Katzung Basic and clinical pharmacology 15th edition</p> <p>-Rang and Dale's Pharmacology, Seventh Edition- H. P. Rang</p>
D. Periodicals, websites	<p>Pharmacological Reviews</p> <p>- Journal of Pharmacology and Experimental therapeutics</p> <p>- British journal of pharmacology</p> <p>- European journal of pharmacology</p> <p>- Pharmacological research</p> <p>http://www.ncbi.nlm.nih.gov/pubmed/</p>

Course Coordinator:

Dr. Ass. Prof. Dr. Seham Abdelwakeel

Head of Department:

Professor Dr. Mohamed Abdellah Ibrahim

A handwritten signature in blue ink, appearing to be 'Dr. Mohamed Abdellah Ibrahim', written over a horizontal line.

Date of last update & approval by department Council:

1 / 2023

مسمى المقرر	جزء اول ماجستير السموم الاكلينيكية
كود المقرر	FA 200

جامعة/أكاديمية : .. المنيا
كلية / معهد : الطب.....
قسم : الفارماكولوجي

A. Matrix of Coverage of Course ILOs by Contents

Contents (List of course topics)	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D
Pharmacokinetic variables including toxicokinetics	+	+		
Autonomic Pharmacology	+	+	+	
Pharmacology of the cardiovascular system and	+	+	+	
Diuretics	+	+	+	+
Drugs affecting blood diseases	+	+		
Corticosteroids	+	+	+	

Nonsteroidal anti-inflammatory drugs and treatment of gout	+	+	+	
Opioids	+	+	+	
Sedative hypnotic drugs	+	+	+	
Environmental & Occupational Toxicology	+	+	+	+
Heavy Metals	+	+		
Management of the Poisoned Patient	+	+	+	+

Date of last update & approval by department Council:

1 / 2023

B. Matrix of Coverage of Course ILOs by Methods of Teaching &

Learning

Methods of Teaching & Learning	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D
Lecture	X	X		
Practical				
Presentation/seminar		x	X	X
Journal club				
Thesis discussion				
Training courses & workshops		x	X	X
Other/s (Specify)				

Date of last update & approval by department Council:

1 / 2023

C. Matrix of Coverage of Course ILOs by Methods of Assessment

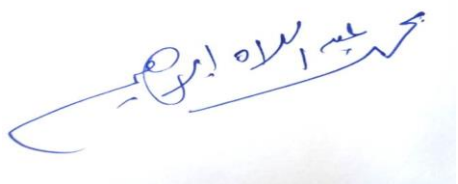
Methods of Assessment	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D
Written exam	X	x		
Oral Exam	X	x	x	X
Assignment				
Other/s(Specify)				

Course Coordinator:

Dr. Ass. Prof. Dr. Seham Abdelwakeel

Head of Department:

Professor Dr. Mohamed Abdellah Ibrahim



Date of last update & approval by department Council:

1 / 2023

Course Specifications of Internal medicine in Master degree in Clinical toxicology

University: Minia University

Faculty: Faculty of Medicine

Department: Internal Medicine

1. Course Information	
<ul style="list-style-type: none">Academic Year/level: 1st part MSc Clinical toxicology	Course Title: Course Specifications of Internal medicine in Master degree in Clinical toxicology CODE: CT200
<ul style="list-style-type: none">Number of teaching hours: (24 week / 4 hours weekly)- Lectures: Total of 80 hours- Practical/clinical: Total of 40 hours	
2.Overall Aims of the course	To deliver an advanced knowledge of main topics of internal medicine and its subspecialties relevant to Clinical toxicology ; hence the candidate can recognize a wide range of medical problems; and establish an advanced skill to deal safely with the medical emergencies in Clinical toxicology specialty.
3. Intended learning outcomes of course (ILOs): <i>Upon completion of the course, the student should be able to:</i>	
A- Knowledge and Understanding	A1. Recognize the basic pathology and microbiology of medical diseases. A2. Identify the etiologies and risk factors of medical diseases. A3. List the differential diagnosis of medical problems. A4. Describe the various therapeutic models/alternatives used for medical problems. A5. Enumerate the common diagnostic and laboratory techniques necessary to solve medical problems. A6. Describe the mechanism of action, side

	<p>effects and complications of common therapeutic drugs.</p> <p>A7. Mention the principles, ethics and legal aspects of professional practice in the field of internal medicine.</p> <p>A8. Select different diagnostic alternatives that help reaching a final diagnosis.</p> <p>A9. Plan to improve performance in the field of internal medicine.</p>
B- Intellectual Skills	<p>B1. Interpret data acquired through history taking to reach a provisional diagnosis for medical diseases.</p> <p>B2. Select different diagnostic alternatives that help reaching a final diagnosis.</p> <p>B3. Make link between knowledge for professional problem solving.</p> <p>B4. Analyze reading of research and issues related to the internal medicine.</p>
C- Professional and Practical Skills	<p>C1. Take a good medical history and conduct a proper general examination.</p> <p>C2. Identify normal and abnormal physical signs by proper regional examination of the body.</p> <p>C3. Write and evaluate medical reports.</p> <p>C4. Identify a clear priority plan in the patient's management.</p> <p>C5. Assess methods and tools in diagnosis and management in internal medicine.</p> <p>C6. Interpret adequately the results of common laboratory investigations.</p> <p>C7. Evaluate adequately the patient's acute morbidity score and need for urgent intervention.</p>
D- General and transferable Skills	<p>D1. Communicate effectively with patients and their families.</p> <p>D2. Assess himself and identify personal</p>

	<p>learning needs.</p> <p>D3. Develop personal skills in writing a case summary and a simple essay.</p> <p>D4. Prepare and present different topics using power point and data show.</p> <p>D5. Work in teamwork.</p> <p>D6. Present problematic internal medicine-cases in seminars.</p>
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4. Course Contents

Topic	Lecture Hours	Practical/Clinical hours	Total No. of hours
1) Nephrology: - Acute kidney injuries - CKD - Electrolytes disturbances - Glomerulonephritis	10	7	20
2) Hematology: - Anemias - Coagulopathies - Platelet dysfunction disorders - Bleeding diathesis	15	7	20
3) Cardiovascular system:- - Hypertension - rheumatic heart diseases - Infective endocarditis - Ischemic heart disease - Congestive heart failure	15	7	20
4) Endocrinology:- - Diabetes mellitus and its complications (acute and chronic). - Parathyroid gland & Calcium homeostasis. - Thyroid diseases. - Hyperlipidemias.	15	7	20
5) Gastrointestinal & Liver diseases: - HCV - HBV - liver cirrhosis - jaundice - Acute liver cell failure	15	6	

6) Chest diseases - Chronic obstructive airway diseases - Bronchial asthma - Pneumonia - pulmonary embolism - pulmonary hypertension	10	6	
Total	80	40	120
5. Teaching and Learning Methods	1-Talk and chalk method in classes. 2-Powerpoint demonstration 3-Practical clinical examination in clinical wards. 4- Medical web sites in the Network. 5- Discussion of medical problems in clinical round. 6- Online lectures.		
6. Teaching and Learning Methods for students with limited Capacity	Special session for training and tutorials.		
7. Student Assessment			
A. Student Assessment Methods	1- Research assignment for the students to assess the general and transferable skills. 2- Log book to assess clinical and transferable skills, attendance to medical conferences and oral discussions of thesis. 3- Final written and commentary exam to assess Knowledge, understanding and intellectual skills. 4- Final oral exam to assess knowledge and understanding. 5- Final practical exam to assess practical skills.		
B. Assessment Schedule (Timing of Each Method of Assessment)	Assessment 1 ... Assignment.... Week: 8-16-22 Assessment 2...according to department schedule. Assessment 3.... Final written exam. Week ...24 Assessment 4 ...Final practical exam Week: 24 Assessment 5....Final oral exam Week....24		
C. Weighting of Each Method	Final-term Examination 60 marks		

of Assessment	Assignment and log book:, 10 marks Oral Examination. 30 marks Practical Examination 50 marks <hr/> Total 100% Total marks: 150
8. List of References:	
A- Course Notes/handouts	Lecture notes prepared by staff members in the department.
B- Essential Books	Davidson's Principles and practice of medicine (24th Edition, 2023). Handbook of critical and intensive care (4th Edition, 2021). Methods of Clinical examination (Salah Ibrahim)
C- Recommended Text Books	Harrison's textbook of medicine (21st Edition, 2022) Cecil's essentials of internal medicine (26th Edition) Hutchison for clinical examination methods (25th Edition, 2022)
D- Periodicals, websites	https://pubmed.ncbi.nlm.nih.gov/ • https://diabetesjournals.org/care (Diabetes Care). • https://www.acpjournals.org/journal/aim (Annals Of Internal Medicine).
9- Facilities required for teaching and learning:	
	<ul style="list-style-type: none"> - Library in the hospital - NET data information - Clinical staff rounds and case presentations. - Lectures courts. - In patients clinical wards teaching (bed-side teaching) - Seminars. - Clinical rounds teaching in classrooms. - Medical conferences attendance. - Thesis discussion attendance.

Course Coordinator/s:

Prof. Dr. Yahia Zakaria

Head of Department:

Prof. Dr. Yousouf Ismail Mousa

Date of last update & approval by department Council: 3/2023

Course Specifications of Internal medicine in Master degree in Clinical Toxicology	مسمى المقرر
GM200	كود المقرر

نموذج رقم (١١)

جامعة/ المنيا

كلية / الطب

قسم/ الباطنة العامة

A. Matrix of Coverage of Course ILOs By Contents

Topic	Knowledge and understanding	Intellectual Skills	Professional and Practical Skills	General skills
1) Nephrology:				
- Acute kidney injuries	A1-A9	B1-B4	C1-C7	D1,D2
- CKD	A1-A9	B1-B4	C1-C7	D1-D6
- Electrolytes disturbances	A1-A9	B1-B4	C1-C7	D1-D6
- Glomerulonephritis	A1-A9	B1-B4	C1-C7	D1-D6
2) Haematology				
Anaemia	A1-A9	B1-B4	C1-C7	D1-D6
Coagulopathy	A1-A9	B1-B4	C1-C7	D1-D6
Platelet dysfunction disorders	A1-A9	B1-B4	C1-C7	D1-D6
Bleeding diathesis	A1-A9	B1-B4	C1-C7	D1-D6
3) Cardiovascular system				
Hypertension	A1-A9	B1-B4	C1-C7	D1-D6
Rheumatic heart diseases				
Infective endocarditis	A1-A9	B1-B4	C1-C7	D1-D6
Ischemic heart disease	A1-A9	B1-B4	C1-C7	D1-D6
Congestive heart failure	A1-A9	B1-B4	C1-C7	D1-D6
4) Endocrinology				
Diabetes mellitus and its complications (acute and chronic).	A1-A9	B1-B4	C1-C7	D1-D6
Parathyroid gland & Calcium homeostasis.	A1-A9	B1-B4	C1-C7	D1-D6
Thyroid diseases	A1-A9	B1-B4	C1-C7	D1-D6

Hyperlipidemias.	A1-A9	B1-B4	C1-C7	D1-D6
5- Gastrointestinal & Liver diseases:				
- HCV	A1-A9	B1-B4	C1-C7	D1-D6
- HBV	A1-A9	B1-B4	C1-C7	D1-D6
- liver cirrhosis	A1-A9	B1-B4	C1-C7	D1-D6
- jaundice	A1-A9	B1-B4	C1-C7	D1-D6
-				
- Acute liver cell failure	A1-A9	B1-B4	C1-C7	D1-D6
6- Chest diseases				
- Chronic obstructive airway diseases	A1-A9	B1-B4	C1-C7	D1-D6
-				
- Bronchial asthma	A1-A9	B1-B4	C1-C7	D1-D6
-				
- Pneumonia	A1-A9	B1-B4	C1-C7	D1-D6
-				
- pulmonary embolism	A1-A9	B1-B4	C1-C7	D1-D6
-				
- pulmonary hypertension	A1-A9	B1-B4	C1-C7	D1-D6

Date of last update & approval by department Council: 3/2023

B - Matrix of Coverage of Course ILOs by Methods of Teaching & Learning

Methods of Teaching & Learning	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D
Lecture	A1-A9	B1-B4	-	-
Practical	-	-	C1-C7	D1-D6
Clinical (Including grand rounds)	-	-	C1-C7	D1-D6
Presentation/seminar	A1-A9	-	-	D1-D6
Journal club	A1-A9	B1-B4	-	
Training courses & workshops	A1-A9	B1-B4	C1-C7	D1-D6

Date of last update & approval by department Council: 3/2023

c- Matrix of Coverage of Course ILOs by Methods of Assessment

Methods of Assessment	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D
Written exam	A1-A9	B1-B4	-	-
Practical exam	-	-	C1-C7	-
Clinical exam	-	B1-B4	C1-C7	-
Oral Exam	A1-A9	B1-B4	-	-
Assignment	A1-A9	-	-	D1-D6

Course Coordinator/s:

Prof. Dr. Yahia Zakaria

Head of Department:



Prof. Dr. Yousouf Ismail Mousa

Date of last update & approval by department Council: 3/2023

Course Specification of Medical Ethics
Master degree of Clinical Toxicology (2022-2023)

University: Minia University

Faculty: Faculty of Medicine

Program on which the course is given: Master degree of Clinical Toxicology

Major or minor element of program: Medical ethics, ethics of medical research

Department offering the program: Forensic Medicine & Clinical Toxicology
Department

Department offering the course: Forensic Medicine & Clinical Toxicology Department

Academic year / Level: First part

A. Basic Information		
<ul style="list-style-type: none"> • Academic Year/level: Post graduate; 1st Part MSC, Clinical Toxicology 	<ul style="list-style-type: none"> • Course Title: Course Specification of Medical Ethics (Master degree of Clinical Toxicology) 	<ul style="list-style-type: none"> • Code: CT200
<ul style="list-style-type: none"> • Number of teaching hours: - Lectures: Total of 30 hours; 3 hour/week - Practical: Total of 15 hours; 1 hour/week 		
B- Professional Information		
<p>1. Overall Aims of the course</p>	<p>By the end of the course the student should be able to identify the value of studying and practicing medicine, the duties of doctors towards their patients, colleagues and community, the ethics in medical consultations among colleagues and also able to explain respect the patient's confidentiality and secrets, recognize the role of health care providers in the community and describe medical errors, negligence and legal issues, ethics of medical research especially on human beings and finally able to explain ethics and evidence based medicine</p>	
<p>2. Intended learning outcomes of course (ILOs): <i>Upon completion of the course, the student should be able to:</i></p>		
<p>A- Knowledge and Understanding</p>	<p>A.1- Identify the basic concept of learning and practicing medicine from the religious and human point of view. A.2- Identify the very beneficial impressive history of medicine; ethics related.</p>	

	<p>A.3- Classify the main principles of medical ethics.</p> <p>A.4- Recognize an integrated approach to deal with patients, their families, community and medical staff in an ethical, legal and human manner.</p> <p>A.5- Identify rules in law and regulations to deal with patients in practicing medicine.</p> <p>A.6- Explain the standard and accredited methods of clinical research especially on human beings.</p>
<p>B- Intellectual Skills</p>	<p>B.1- Design approach to patients in different situations; critical and noncritical ones.</p> <p>B.2- Develop adequate communication skills with patients, community and colleagues.</p> <p>B.3- Conclude in medical researches on clear ethical basis.</p> <p>B.4- Use knowledge and learn according to standard basis worldwide.</p> <p>B.5- Apply and practice medicine according to concepts of evidence based medicine.</p> <p>B.6- Recognize common ethical dilemma and suggest a proper solution.</p>
<p>C- Professional and Practical Skills</p>	<p>C.1- Use a high professional approach with colleagues and patients.</p> <p>C.2- Modify steps of upgrading his/her educational, academic and clinical carriers.</p> <p>C.3- Use the standard guidelines in managing patients.</p> <p>C.4- Identify what is called as clinical governance and auditing his /her Performance.</p>
<p>D- General and transferable Skills</p>	<p>D.1- Identify how to respect his/herself and the profession.</p> <p>D.2- Develop adequate behavior and skill communications with community.</p> <p>D.3- Modify life and live like others sharing social and national affairs.</p> <p>D.4- Develop the capacity of helping people and share in upgrading their culture and education.</p> <p>D.5- Identify how to participate in the national and social affairs and responsibilities.</p>

3- Course Contents

TOPIC	Lecture Hours	Practical Hours	Total hours
Medical Responsibility and Duties of the physician	2	1	3
Medicolegal aspect of cloning	2	1	3
Defensive Medicine	2	1	3
Diagnosis of death & Death Certificates	2	1	3
Consent in medical field	2	1	3
Medical malpractice	2	1	3
Medical syndicate	2	1	3
Professional secrecy	2	1	3
Physician disciplinary proceeding	2	1	3
Domestic Violence	2	1	3
Euthanasia (Mercy death)	2	1	3
Ethics in medical research	2	1	3
Medical reports	2	1	3
Rules of using addictive drugs among physicians	2	1	3
Medical certificates	2	1	3
Total	(30 hr.) 2/W	(15 hr.) 1/W	(45 hr.) 3/W

4- Teaching and Learning Methods	<p>4.1 - Straight lectures; power point presentations 4.2 - Practical lessons 4.3 - Brain storming with the students 4.4 - Questions and Answers 4.5- Movie based learning</p>						
5- Teaching and Learning Methods to students with limited Capacity	<p>(Not applicable)</p>						
6- Student Assessment							
A. Student Assessment Methods	<p><u>TENDANCE CRITERIA:</u> by Faculty laws (log book) <u>ASSESSMENT TOOLS:</u> *Final Written exam: short essay to asses knowledge and understanding. problem solving to asses intellectual skills MCQ to assess knowledge and intellectual skills. *Oral exam; to asses knowledge and understanding. Also intellectual skills, attitude, and communication. *Practical exam (OSPE): to assess practical and professional skills.</p>						
B. Assessment Schedule	<ul style="list-style-type: none"> • Final Written exam week: 24-28 • Oral exam week: 24-28 • Practical exam week: 24-28 • 						
C. Weighting of Assessment	<table border="0"> <tr> <td>• Final Written exam</td> <td>40% (40 Marks)</td> </tr> <tr> <td>• Oral & Practical exams</td> <td>60% (60 Marks)</td> </tr> <tr> <td>• Total</td> <td>100% (100 Marks)</td> </tr> </table>	• Final Written exam	40% (40 Marks)	• Oral & Practical exams	60% (60 Marks)	• Total	100% (100 Marks)
• Final Written exam	40% (40 Marks)						
• Oral & Practical exams	60% (60 Marks)						
• Total	100% (100 Marks)						
7- List of References							
A. Course Notes/handouts	<p>Department book by staff members. Log Book.</p>						
B. Essential Books (text books)	<p>Medical Ethics Manual, 2nd Edition John R. Williams, 2009. Medical Ethics, 2nd Edition, Michael Boylan, 2014.</p>						
C. Recommended Books	<p>Text book of medical ethics, Erich H. Loewy, 1989</p>						
D. Periodicals	<p>Journal of Medical Ethics</p>						

	Journal of Medical Ethics and History of Medicine
E. Web sites	https://en.wikipedia.org/wiki/Medical_ethics https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5074007/
8- Facilities required for teaching and learning	Classrooms for theoretical lectures and tutorials

Course Coordinators:

Prof. Dr. Morid Malak Hanna

Dr. Mennatallah Mahmoud Ahmed

Head of Department:

Prof. Dr. Irene Atef Fawzy



Date of the last update & approval by department Council: 5/3/2023

Course Specification of Medical Ethics	مسمى المقرر
Master degree of Clinical Toxicology (First part))	
	كود المقرر

جامعة/أكاديمية :المنيا.....
كلية / معهد:الطب البشرى.....
قسم:الطب الشرعى والسموم
الأكلينية.....

A. The Matrix of Coverage of Course IL by Contents

Contents	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D
Medical Responsibility and Duties of the physician	A1,3	B4	C1	D1,2
Medicolegal aspect of cloning	A1,2	B3	-	-
Defensive Medicine	A4,5	B6	C3	D3
Diagnosis of death & Death Certificates	A1,2	B2	-	-
Consent in medical field	A2,5	-	-	-
Medical malpractice	A1,6	B5	C4	D5
Medical syndicate	A5,6	B3	-	-
Professional secrecy	A1,2,3	-	-	D4
Physician disciplinary proceeding	A2,4,5	B2	-	D1,2,3
Domestic Violence	A2,4,6	-	C2	-
Euthanasia (Mercy death)	A1,3,4	B1	-	-
Ethics in medical	A1,2	-	-	-

research				
Medical reports	A3,4	-	C1,2	D1.2
Rules of using addictive drugs among physicians	A1,4	B1,2	-	-
Medical certificates	A1,6	B3,5	C3	D1,4

Date of the last update & approval by department Council: 5/3/2023

B. Matrix of Coverage of Course ILOs by Methods of Teaching & Learning

Methods of Teaching & Learning	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D
Lecture	A1,2,3,4,5,6	B1,2,3,4,5,6	-	-
Practical	-	-	C1,2,3,4	-
Presentation/seminar	-	-	-	D1,2,3,4,5
Journal club	-	-	-	-
Thesis discussion	-	-	-	-
Training courses & workshops	-	-	-	D1,2,3,4,5
Movie based learning	-	-	-	D1,2,3,4,5

Date of the last update & approval by department Council: 5/3/2023

C. Matrix of Coverage of Course ILOs by Methods of Assessment

Methods of Assessment	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D
Written exam	A1,2,3,4,4,5,6	B1,2,3,4,5	-	-
Practical exam	-	-	C1,2,3,4,5	-
Oral Exam	A1,2,3,4,4,5,6	B1,2,3,4,5	-	-

Course Coordinators:

Prof. Dr. Morid Malak Hanna

Dr. Mennatallah Mahmoud Ahmed

Head of Department:

Prof. Dr. Irene Atef Fawzy

Date of the last update & approval by department Council: 5/3/2023

Course Specifications of Specific Toxicology in Master Degree of Clinical Toxicology
Second part 2022-2023

University: Minia University

Faculty: Faculty of Medicine

Department offering the course: Forensic Medicine & Clinical Toxicology department.

Course Specifications

It is a part of Postgraduate (MSc) Programme for Forensic Medicine & Clinical Toxicology Department.

Programme(s) on which the course is given: Second part MSc of Clinical Toxicology

Major or minor element of programmes: Specific Toxicology.

1. Course Information		
<ul style="list-style-type: none">• Academic Year/level: 2nd part MSc, Clinical Toxicology	<ul style="list-style-type: none">• Course Title: Specific Toxicology in Master Degree of Clinical Toxicology Second part	<ul style="list-style-type: none">• Code: CT200
<ul style="list-style-type: none">• Number of teaching hours:<ul style="list-style-type: none">- Lectures: Total of 104 hours, 2 hours/week- Practical/clinical: Total of 104 hours, 2 hours/week		
2. Overall Aims of the course	<i>By the end of the course the postgraduate student should be able to have the professional knowledge about specific toxicology.</i>	
3. Intended learning outcomes of course (ILOs): <i>Upon completion of the course, the postgraduate student should be able to:</i>		
A-Knowledge and Understanding	By the end of this course, postgraduate students should	

	a.1 Recognize adequate knowledge about specific toxicology.
B-Intellectual Skills	By the end of this course, postgraduate students should have adequate knowledge about: b1. Define research studies, and/or design a scientific study on a research problem. b2. Conclude toxicological emergencies and find solutions. b3. Identify research and issues related to the toxicological emergency.
C-Professional and Practical Skills	By the end of this course, postgraduate students should have adequate knowledge about: c1. Apply the basic and modern professional skills in the area of clinical toxicology.
D-General and transferable Skills	By the end of this course, postgraduate students should have adequate knowledge about: d1. Modify himself and be aware of personal learning needs. d2. Practice himself continuously.

4. Course Contents

Topic	Lecture No. of hours	Practical/Clinical No. of hours	Total No. of hours
Poisons classification	4	4	8
-Factors affecting toxicity	4	4	8
-Corrosives	5	5	10
-Heavy metals	10	10	20
-Toxic gases	10	10	20
- Toxic plants	16	13	29
-Pesticides	8	6	14
-Food poisoning	8	10	18

-Animal poisoning	8	8	16
-Insects poisoning	6	6	12
-Drugs intoxication	17	20	37
-Alcohol intoxication	8	8	16
Total	104	104	208
5. Teaching and Learning Methods	<p>5.1- Lectures: live, online, and pre-recorded video lectures</p> <p>5.2- Practical lessons and clinical grand rounds.</p> <p>5.3- Seminars.</p> <p>5.4- Searches in computers (assignments).</p> <p>5.5- Movie based learning</p>		
6. Student Assessment Methods	<p>6. 1- log book</p> <p>6.2- Written exams: Short essay: to assess knowledge Problem solving: to Asses intellectual skills MCQ: to assess knowledge and intellectual skills</p> <p>6.3- Practical Exams(short and long case sheet): to assess practical and professional skills</p> <p>6.4- Clinical Exams: to assess practical and professional skills</p> <p>6.5- Oral Exams(short and long case sheet): to assess knowledge, understanding, attitude, and communication.</p> <p>Assessment 1: Final written exam week: 72-76 Assessment 2: Oral exam week: 72-76 Assessment 3: Practical and clinical exams week: 72-76</p>		
- Assessment Schedule (Timing of Each Method of Assessment)			
7. Weighting of Each Method of Assessment	Written exam	280	
	Oral exam	140	
	Practical examination	140	
	Clinical examination	140	
	Total	700	

8. List of References	
A. Course Notes/handouts	Department notes, lectures and handouts Logbook
B. Essential Books	Nelson L., Hoffman R., Howland M. N., et al. (2019): Goldfrank's Toxicologic Emergencies (11th ed.), New York, USA: McGraw-Hill Education / Medical, 2096 pages. ISBN: 9781259859618.
C. Recommended Text Books	Viccellio P. (1993): Handbook of Medical Toxicology, Boston, USA: Little Brown & Co., 812 pages. ISBN: 9780316902472.
D. Periodicals, websites	1- www.medscape.com 2- www.emedicine.com

9- Facilities required for teaching and learning

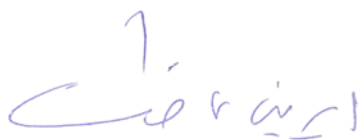
1. Clinical Toxicology research laboratory equipped with skill tools.
2. Classrooms for theoretical lectures and tutorials.

Course coordinators:

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Assistant Prof. Dr. Mohammed Ismail
Lecturer. Mennatallah Mahmoud Ahmed

Head of Department:

Professor Dr. / Irene Atef Fawzy



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Course Specifications of Specific Toxicology in Master Degree of Clinical Toxicology (Second part)	مسمى المقرر
CT200	كود المقرر

نموذج رقم (١١)

جامعة/أكاديمية :المنيا.....

كلية / معهد:الطب البشرى.....

قسم:الطب الشرعى والسموم

الأكلينكية.....

A- Matrix of Coverage of Course ILOs By Contents

Contents (List of course topics) Specific Toxicology	Intended Learning Outcomes (ILOs)
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	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D
-Factors affecting toxicity	A1	B2	C1	D1
-Corrosives	A1	B3		
-Heavy metals	A1	B1, B2, B3	C1	D2
-Toxic gases	A1	B2, B3	C1	D2
- Toxic plants	A1	B3		
-Pesticides	A1	B1, B2, B3	C1	D2
-Food poisoning	A1	B1, B2		
-Animal poisoning	A1	B1, B3		
-Insects poisoning	A1	B1, B3		
-Drugs intoxication	A1	B1, B3	C1	D2
-Alcohol intoxication	A1	B1, B3		

Date of the last update & approval by department Council: 5/3/2023

B- Matrix of Coverage of Course ILOs by Methods of Teaching & Learning

Methods of Teaching & Learning	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D
Lecture	A1	B1, B2, B3	-	-
Practical	-	-	C1	-
Clinical (Including grand rounds)	-	-	C1	-
Presentation/seminar	-	-	-	D1, D2
Journal club	-	-	-	D1, D2
Thesis discussion	-	-	-	D1, D2
Training courses & workshops	-	-	-	D1, D2
Movie based learning	-	-	-	D1, D2

Date of the last update & approval by department Council: 5/3/2023

C- Matrix of Coverage of Course ILOs by Methods of Assessment

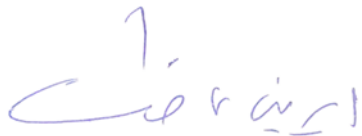
Methods of Assessment	Intended Learning Outcomes (ILOs)			
	A. Knowledge & Understanding	B. Intellectual Skills	C. Professional & Practical skills	D. General & Transferable Skills
	A	B	C	D
Written exam	A1	B1, B2, B3	-	-
Practical exam	-	-	C1	-
Clinical exam	-	-	C1	-
Oral Exam	A1	B1, B2, B3	-	-

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Matrix of GARS versus ARS

Clinical Toxicology Master Degree

GARS	ARS
<p><u>a- Knowledge and understanding</u></p> <p>a.1. Theories and basics related to the learning field as well as in related areas.</p> <p>a.2. Mutual influence between professional practice in pathology and its impact on the environment.</p> <p>a.3. Main scientific advances & developments in clinical toxicology.</p> <p>a.4. Ethical and medico-legal principles of professional practice in clinical toxicology.</p> <p>a.5. Principles and the basics of quality in professional practice in clinical toxicology.</p> <p>a.6. Basics and ethics of scientific research.</p>	<p><u>a- Knowledge and understanding</u></p> <p>a.1. Use different sources to obtain information and knowledge.</p> <p>a.2. Adjust rules and indicators for assessing the performance of others.</p> <p>a.3. Appraise and utilize scientific knowledge to</p> <p>a.4. continuously update and improve practical skills.</p>
<p><u>b. Intellectual skills</u></p> <p>b.1. Analyze and evaluate relevant information and correlate them to solve problems in the area of clinical toxicology.</p> <p>b.2. Solve special problems even in absence of some data.</p> <p>b.3. Correlate different knowledge to solve problems in clinical toxicology professionally.</p> <p>b.4. Conduct a scientific research study and / or write a scientific systemic study on a research problem.</p> <p>b.5. Assess risk in professional practices in the area of clinical toxicology.</p>	<p><u>b. Intellectual skills</u></p> <p>b.1. Cooperate in a team, and team's leadership in various professional contexts.</p> <p>b.2. Use analytical skills in anticipating risks and Risk assessment.</p> <p>b.3. Plan for the development of performance in the field of clinical toxicology.</p> <p>b.4. Conclude problems in the field of clinical toxicology and find their solutions</p>

<p>b.6. Plan for the development of professional performance in the area of clinical toxicology.</p> <p>b.7. Be able of decision-making in a variety of professional situations.</p>	
<p><u>c. professional and practical skills</u></p> <p>c.1. Master the basic & modern professional skills in clinical toxicology.</p> <p>c.2. Write and evaluate/comment on professional reports.</p> <p>c.3. Evaluate & demonstrate relevant skills of existing methods and tools in the area of clinical toxicology.</p>	<p><u>c. professional and practical skills</u></p> <p>c.1. Master decision making capabilities according to available data & information and in different situations related to clinical toxicology.</p> <p>c.2. Possess capabilities of efficient management, employment, improvement of available resources as well as finding new resources.</p>
<p><u>d. General and Transferable skills</u></p> <p>d.1. Demonstrate effective communication skills in its different forms.</p> <p>d.2. Use information technology to serve the professional practice.</p> <p>d.3. Demonstrate skills of self-assessment and identify personal learning needs.</p> <p>d.4. Use different sources to get information and knowledge.</p> <p>d.5. Develop rules and indicators for appraisal of others.</p> <p>d.6. Work in a team, and demonstrate leadership of teams in various professional contexts.</p> <p>d.7. Manage time efficiently.</p> <p>d.8. Demonstrate skills of self-learning and continuous learning.</p>	<p><u>d. General and Transferable skills</u></p> <p>d.1. Demonstrate leadership responsiveness to the larger context of the related health care system, including the organization, partnership with health care providers and managers, and resource allocations.</p> <p>d.2. Demonstrate in depth awareness of public health and related health policy issues including independent ability to improve health care, and adjust and carry out system-based improvement of care.</p> <p>d.3. Show model attitudes and Professionalism.</p> <p>d.4. Demonstrate commitment for life-long learning and maintenance of competence and ability for continuous</p>


	medical education and learning in subsequent stages and in the area of specialty or its subspecialties.
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Matrix ARS versus program ILOs

Clinical Toxicology Master Degree

IOLS	ARS
<p><u>a- Knowledge and understanding</u></p> <p>a.1. Define the basics of general toxicology.</p> <p>a.2. Define the basics of systemic toxicology.</p> <p>a.3. Define the basics of specific toxicology.</p> <p>a.4. Identify the mechanism of toxicity by different poisons.</p> <p>a.5. State the clinical picture and complications of intoxication by different poisons on the different body systems.</p> <p>a.6. State differential diagnosis of toxins.</p> <p>a.7. Identify the treatment of intoxication by different poisons.</p> <p>a.8. State scientific development in the field of clinical toxicology.</p> <p>a.9. State the mutual influence between professional practice and its impacts on the environment.</p> <p>a.10. Identify the ethical and legal principles of professional practice in the field of clinical toxicology.</p> <p>a.11. Understand the principles of quality in professional practice in the field of clinical toxicology.</p> <p>a.12. Understand the basics and ethics of</p>	<p><u>a- Knowledge and understanding</u></p> <p>a.1. Use different sources to obtain information and knowledge.</p> <p>a.2. Adjust rules and indicators for assessing the performance of others.</p> <p>a.3. Appraise and utilize scientific knowledge to continuously update and improve practical skills.</p>

<p>scientific research.</p>	
<p><u>b. Intellectual skills</u></p> <p>b.1. Analyze data acquired through history taking to reach a provisional diagnosis for cases.</p> <p>b.2. Distinguish different diagnostic alternatives the ones that help reaching a final diagnosis without burden on the patient or waste the time and money of the department.</p> <p>b.3. Analyze the knowledge for Professional problems' solving.</p> <p>b.4. Recognize a research study and / or design a scientific study on a research problem.</p> <p>b.5. Integrate risk in professional practices in the field of clinical toxicology.</p> <p>b.6. Design a Plan for the development of performance in the field of clinical toxicology.</p> <p>b.7. Operate causes of misdiagnosis of cases and how to make the right decision.</p> <p>b.8. Analyze researches and issues related to clinical toxicology.</p>	<p><u>b. Intellectual skills</u></p> <p>b.1. Cooperate in a team, and team's leadership in various professional contexts.</p> <p>b.2. Use analytical skills in anticipating risks and Risk assessment.</p> <p>b.3. Plan for the development of performance in the field of clinical toxicology.</p> <p>b.4. Conclude problems in the field of clinical toxicology and find their solutions</p>
<p><u>c. professional and practical skills</u></p> <p>c.1. Use gastric lavage.</p> <p>c.2. Use endotracheal intubation.</p> <p>c.3. Prepare the patient to mechanical ventilator.</p> <p>c.4. Use syringe pump and infusion pump.</p>	<p><u>c. professional and practical skills</u></p> <p>c.1. Master decision making capabilities according to available data & information and in different situations related to clinical toxicology.</p> <p>c.2. Possess capabilities of efficient management, employment, improvement</p>


c.5. Write medical report.	of available resources as well as finding new resources
<p><u>d. General and Transferable skills</u></p> <p>d.1. Compare effectively by its different types.</p> <p>d.2. Use information technology to serve the development of professional practice.</p> <p>d.3. Modify himself and be aware of personal learning needs.</p> <p>d.4. Use different sources to obtain information and knowledge.</p> <p>d.5. Design rules and indicators for assessing the performance of others.</p> <p>d.6. Design a team, and team's leadership in various professional contexts.</p> <p>d.7. Plan for time efficiently.</p> <p>d.8. Modify himself continuously.</p>	<p><u>d. General and Transferable skills</u></p> <p>d.1. Demonstrate leadership responsiveness to the larger context of the related health care system, including the organization, partnership with health care providers and managers, and resource allocations.</p> <p>d.2. Demonstrate in depth awareness of public health and related health policy issues including independent ability to improve health care, and adjust and carry out system-based improvement of care.</p> <p>d.3. Show model attitudes and Professionalism.</p> <p>d.4. Demonstrate commitment for life-long learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages and in the area of specialty or its subspecialties.</p>

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