



(معهد معتمد للدراسات العليا في علوم الأورام)

Cairo University
National Cancer Institute
Anesthesia, SICU & Pain Relief Department

**SPECIFICATION OF
ANESTHESIA AND ALGESIOLOGY
MD PROGRAM
(ANA ALG 700)**

2024 /2025

A. Administrative Information

Program Title: Anaesthesia and Algesiology

Degree: Doctorate Degree

Department offering the program: Anesthesia, SICU, and Pain Relief

Coordinator: Prof. Dr Emad Gerges Saleh

External Evaluator: Prof. Dr Ali Essa (Al Azhar Faculty of Medicine)

Date of most recent approval of program specification by the Institute Council: Sep.2015, March 2022

B. Professional Information

1. Program Aims

The aims of the Anaesthesia and Algesiology program are to provide the candidate with:

1. Sound knowledge and practice of general and regional anesthetic techniques for different diseases and surgical specialties.
2. Knowledge and skills of accurate diagnosis, prophylaxis and treatment of critical disorders of different organs or systems.
3. Knowledge and skills to be capable of accurate diagnosis and treatment of different cancer and non-cancer pain syndromes
4. Knowledge and skills of proper management of different systems' disorders in terminal ill-cancer patients.

2. Intended Learning Outcomes (ILOs) of the Program

By the end of this program, degree holder must be able to:

A. Knowledge and understanding:

- A.1. Identify principles of surgical oncology and radiotherapy
- A.2. Describe the descriptive statistics, research methods, and general skills.
- A.3. Describe the anatomic, physiologic, biochemical, physical and pharmacologic basics relevant to anesthesia and pain practice.
- A.4. Explain pre, intra, and postoperative anesthetic management (general and regional techniques) for different disease states and surgical specialties.
- A.5. Describe the pathophysiology, diagnosis, monitoring and treatment of critical care disorders
- A.6. Discuss the different approaches to assessment, diagnosis and management of acute and chronic pain syndromes.
- A.7. Identify proper management of different systems' disorders in terminal ill-cancer patients.

B. Intellectual skills

- B.1. Plan appropriate anesthetic management in different disease states and surgical specialties.
- B.2. Interpret physical findings, monitoring, laboratory and radiological data of the critically- ill patients; and plan treatment protocols.
- B.3. Interpret physical, laboratory and radiological data of patients with acute or chronic pain; differentiate possible diagnoses; and plan treatment protocols.
- B.4. Analyze physical, laboratory and radiological data of terminal-ill patients ; differentiate possible diagnoses; and plan treatment protocols
- B.5. Interpret and design clinical research studies.

C. Professional and practical skills

- C.1. Demonstrate competence in proper history-taking and physical examination of the patients.
- C.2. Demonstrate an ability to establish safe environments for clinical practice, which minimize risk to patients, and others, including safe equipment operation, the use of hazard control and infection control procedures.

- C.3. Apply evidence-based practice, evaluate practice systematically and participate in audit procedures.
- C.4. Demonstrate patency of upper airway during anesthesia with different methods including fiberoptic bronchoscopy
- C.5. Demonstrate neuroaxial and peripheral nerve blocks.
- C.6. Monitor patients and manage anesthesia in different disease states and surgical specialties.
- C.7. Employ, maintain, wean from mechanical ventilation and practice advanced cardiac life support (ACLS).
- C.8. Demonstrate procedures for low back pain, sympathetic blocks, and neuraxial implants; and attend vertebroplasty and radiofrequency techniques.
- C.9. Change practice as needed to take into account the new developments.
- C.10. Prepare fundamental or applied research and apply ethical standards in both patient care and research.

D. General skills

- D.1. Demonstrate the ability to gather and evaluate evidence and information from a wide range of sources.
- D.2. Demonstrate effective skills in communicating information, advice, instruction and professional opinion to colleagues, patients, their relatives and carers (including informed consent)
- D.3. Demonstrate an understanding of the need to respect, and, so far as possible, uphold, the rights, dignity and autonomy of every patient.
- D.4. Demonstrate an understanding of the need to build and sustain professional relationships both as an independent practitioner and as a member of a team.

Graduates Attributes

The graduates of Anaesthesia and Algology program have the following qualities:

- They have the ability to practise general and regional anesthetic techniques for different diseases and surgical specialties; particularly:
 - Thoracic surgeries requiring double lumen intubation
 - Endoscopic and robotic surgeries
 - Pediatric surgery
- They have the skills to manage critical disorders in surgical intensive care units
- They have the capability of accurate diagnosis and treatment of different cancer and non-cancer pain syndromes
- They are experienced in interventional pain procedures.
- Being specialists in pain management, they are characteristic in managing acute pain in post-anesthetic care units
- Being specialists in pain management, they also have the ability to manage refractory pain in terminally-ill patients; especially cancer patients
- In addition, they have the skills to properly manage patients in palliative care units.

3. Academic Standards

The Academic Standards are adopted from and the general academic reference standards for postgraduate studies published by the National Authority for Quality Assurance and Accreditation of Education NAQAAE, 2009.

The standards of the Accreditation Council for Graduate Medical Education (USA) ACGME, April 2006 are used as a benchmark. Benchmarking has, therefore, been restricted to the generic areas of activity.

Benchmark Statement

"Accreditation Council for Graduate Medical Education (ACGME)" in the U S

4. Program Structure and Contents

a- Program duration:

- Two years for general courses, specialty courses and the thesis.
- Thesis: discussed at 20 months or more from the date of acceptance of the NCI council on the thesis protocol.

b- Program Structure:

- Basic science (General) courses: 9 Credit Points
- Specialty courses: 16 Credit Points
- Scientific activities: 13 Credit Points
- Practical training: 45 Credit Points
- Thesis: 40 Credit Points

Total: 123 Credit Points

5-Courses contributing to the program (see matrix below)

Title	Code N°	Credit Points	Lecture/Tutorial	Practical
Principles of Surgical Oncology	G1	1	1	0
Principles of Radiotherapy	G3	1	1	0
Descriptive Statistics	G5	1	1	0
Research methods	G6	1	1	0
General skills	G11	1	1	0
Applied Basics of Anesthesia	G Ana/Alg 701	2	2	0
Applied Basics of pain management	G Ana/Alg 702	2	2	0
Advanced Anesthesia	Ana/Alg 703	8	4	4
Surgical Intensive Care	Ana/Alg 704	3	1.5	1.5
Pain Management	Ana/Alg 705	4	2	2
Palliative care	Ana/Alg 706	1	1	0

6. Program Admission Requirements

To be admitted to the Anesthesia and Algesiobiology Doctorate Degree Program, the candidate should have got Master Degree in Anesthesiology from one of Egyptian Universities or acknowledged Universities (date of granting of MSc degree not exceeding 10 years at the time of admission). Program is open for new admissions during July and January each year.

7. Regulations for progression and Program completion

- The candidate must pass the final exam at the end of 2 academic years.
- The candidate must register a thesis by time of admission to the program.
- The candidate must defend his thesis (after a minimum of 20 months from registration approval) to complete the program and to get the degree.

8. Students Assessment Methods

Assessment Methods	Measured ILOs
1- Written Exams	A1-7, B1-4, D1
2- Oral Exams	A1-7, B1-4, C1-9, D1
3- Practical Exams	C1-9, D1-2, E1-2
4- Thesis	B5, C10
5- Log book	C1-9

- A refers to knowledge and understanding ILOs, B refers to intellectual skills ILOs, C refers to professional and practical skills ILOs, D refers to general skills ILOs, and E refers to attitude ILOs. - Number refers to ILO number under each A-E categories.

9. Evaluation of the program ILOs

- Senior students
- Alumni (Graduates)
- Stakeholders (employers)
- External evaluators

Program-Course ILOs Matrix

Course title	A 1	A 2	A 3	A 4	A 5	A 6	A 7	B 1	B 2	B 3	B 4	B 5	C 1	C 2	C 3	C 4	C 5	C 6	C 7	C 8	C 9	C 10	D 1	D 2	D 3	D 4
Principles of surg. Oncology (G1)	■												■	■	■						■	■		■		■
Principles of radiotherapy (G3)	■												■	■	■						■	■		■		■
Desc. Statistics (G5)		■										■											■			
Research methods (G6)		■										■			■							■	■	■		■
Gen. skills (G11)		■												■								■		■	■	■
Basics of anesth G Ana/Alg 701			■	■	■			■	■	■	■					■	■	■	■				■			
Basics of pain G Ana/Alg 702			■			■	■	■	■	■	■						■			■			■			
Adv Anesth Ana/Alg 703	■		■	■	■		■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■
Sug ICU Ana/Alg 704	■		■	■	■		■	■	■	■		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Pain manag Ana/Alg 705			■		■	■	■	■	■	■	■	■	■	■	■		■			■	■	■	■	■	■	■
Palliative care Ana/Alg 706						■	■			■	■		■		■					■	■	■	■	■	■	■
Thesis		■										■			■							■	■	■	■	■

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We certify that the information required to deliver this program is contained in the above specification and will be implemented. All courses specification for this program are in place.

Program coordinator
Prof. Emad Gerges Saleh

Head of Department
Prof. Ghada Al Awady