

REA

Residency in Anesthesiology

(Edition 2013)

First Semester

Code	Name	CL	L	U	CA	HT	UDC
ME4140	Clinical Ethics	1.5	0	6	1.5	6	1.8
ME4142	Quality Health Care	1.5	0	6	1.5	6	1.8
ME4234	Anesthesiology I	3	0	12	3	12	3.5
ME4235	Medical Care in Anesthesiology I	0	60	12	3	60	3.5
		6	60	36	9	84	10.6

Second Semester

Code	Name	CL	L	U	CA	HT	UDC
ME4141	Health Sciences Education	1.5	0	6	1.5	6	1.8
ME4143	Research and Innovation Methods	1.5	0	6	1.5	6	1.8
ME4236	Anesthesiology II	3	0	12	3	12	3.5
ME4237	Medical Care in Anesthesiology II	0	60	12	3	60	3.5
		6	60	36	9	84	10.6

Third Semester

Code	Name	CL	L	U	CA	HT	UDC
ME4144	Thesis Project I	3	0	12	3	12	0
ME4238	Anesthesiology III	3	0	12	3	12	3.5
ME4239	Medical Care in Anesthesiology III	0	60	12	3	60	3.5
		6	60	36	9	84	7

Fourth Semester

Code	Name	CL	L	U	CA	HT	UDC
ME4240	Anesthesiology IV	3	0	12	3	12	3.5
ME4241	Medical Care in Anesthesiology IV	0	60	12	3	60	3.5
ME5190	Thesis Project II	3	0	12	3	12	
		6	60	36	9	84	7

Fifth Semester

Code	Name	CL	L	U	CA	HT	UDC
ME5191	Elective Specialty I	0	30	6	1.5	30	
ME5287	Anesthesiology V	3	0	12	3	12	3.5
ME5288	Medical Care in Anesthesiology V	0	30	6	1.5	30	
		3	60	24	6	72	3.5

Sixth Semester

Code	Name	CL	L	U	CA	HT	UDC
ME5192	Elective Specialty II	0	30	6	1.5	30	
ME5289	Anesthesiology VI	3	0	12	3	12	3.5
ME5290	Medical Care in Anesthesiology VI	0	30	6	1.5	30	
		3	60	24	6	72	3.5

Seventh Semester

Code	Name	CL	L	U	CA	HT	UDC
ME5291	Anesthesiology VII	3	0	12	3	12	3.5
ME5292	Medical Care in Anesthesiology VII	0	60	12	3	60	
		3	60	24	6	72	3.5

Eighth Semester

Code	Name	CL	L	U	CA	HT	UDC
ME5266	Thesis Defense	0	0	1	.3	0	
ME5293	Anesthesiology VIII	3	0	12	3	12	3.5
ME5294	Medical Care in Anesthesiology VIII	0	60	12	3	60	
		3	60	25	6.3	72	3.5

Academic credits

- CL** The letter "CL" indicates the number of class-hours per week.
- L** The letter "L" indicates the number of laboratory-hours per week.
- U** The letter "U" represents the equivalent time in courses lasting 15 weeks (semester) and 12 weeks (trimester), of weekly work that the student dedicates to the course to meet its objectives. They include the "class hours", as well as the time dedicated to the student's independent work.
- CA** The letters "CA" represents the number of semester credit hour of the course.
- HT** Total hours
- UDC** Load Units

Program and Learning Outcomes

General program objectives

The aim of the Residency in Anesthesiology of Tecnológico de Monterrey is to train exceptional Anesthesiologists who apply anesthesia and analgesia techniques, according to the highest quality and safety standards, in both inpatient and outpatient settings. It also seeks to prepare individuals with integrity and a humanistic outlook in their clinical, teaching and research practice, while strictly adhering to ethical principles and the standards of professional practice, outstanding leaders at local and international levels, who contribute through clinical research to generating innovations in the techniques and procedures of this specialization that will benefit patients, their families, specialists, the healthcare team and medical institutions.

Learning Outcomes

On completing the program, students will be able to:

- Applying their knowledge, abilities and skills in a collaborative, multidisciplinary manner, within a framework of safe, comprehensive patient care.
- Be creative and innovative, conducting relevant clinical research and able to perform with quality in national and international settings, consolidating their professional competency activities with solid attitudes and values.

Target Audience

Applicants must be qualified physicians in compliance with all the official regulations of the Ministry of Education and the Ministry of Health. They should display high moral values, be ethical and congruent with the profession they have chosen to practice. They must also be willing to work in multidisciplinary teams, interested in conducting quality research, proficient in their native language as well as a foreign language, have a neat and tidy appearance, and show respect for patients, staff and the institution in which they work.

In order to be admitted to the Residency in Anesthesiology of Tecnológico de Monterrey, applicants must satisfactorily meet the graduate admission requirements stipulated by ITESM and the Mexican Ministry of Health.

Program Outcomes

Justification

Advancements in Anesthesiology have evolved at an unprecedented speed. Greater knowledge of anesthesia techniques, the ongoing discovery of new drugs used in anesthesiology and advancements in monitoring during anesthesia are the results of globalization and technological development, all of which provides greater patient safety and benefits. Now more than ever before, anesthesiologists must practice with evidence-based scientific bases, oriented toward medical practice for appropriate perioperative management.

Within the framework of the Mission 2015 of Tecnológico de Monterrey, in association with the Nuevo León Ministry of Health, the educational model of the Multicentric Medical Residency Program of the School of Medicine and Health Sciences, which executes medical practice in the field of social and private institutional medicine, will produce a different profile in our graduates with a profound sense of academic and social responsibility.

We are fully convinced of the high degree of ethics and humanism of our residents, who have to be prepared to face the future challenges of Anesthesiology, practicing in Mexico and abroad in the fields of research and in development of new social opportunities, collaborating to enhance the quality of the professional lives of their colleagues and of their future students, which will be reflected in the benefits attained in the society in which they participate. In conclusion, the broad scope of our goals includes the conservation and enhancement of society's living conditions and opportunities.

Program objectives

The aim of the Residency in Anesthesiology of Tecnológico de Monterrey is to train exceptional Anesthesiologists who apply anesthesia and analgesia techniques, according to the highest quality and safety standards, in both inpatient and outpatient settings. It also seeks to prepare individuals with integrity and a humanistic outlook in their clinical, teaching and research practice, while strictly adhering to ethical principles and the standards of professional practice.

Anesthesiologists who graduate from this institution are outstanding leaders at local and international levels, who contribute through clinical research to generating innovations in the techniques and procedures of this specialization that will benefit patients, their families, specialists, the healthcare team and medical institutions.

Learning Outcomes

Graduates from this program will be specialist practitioners trained to a level of excellence in the area of Anesthesiology, capable of applying their knowledge, abilities and skills in a collaborative, multidisciplinary manner, within a framework of safe, comprehensive patient care. They will be creative and innovative, conducting relevant clinical research and able to perform with quality in national and international settings, consolidating their professional competency activities with solid attitudes and values. They are committed to political, economic, social and cultural development and transformation, acting with the humility, good judgment and impartiality that distinguish them within their communities. Through a medical practice based on the problem-solving educational methodology, graduates will be highly competent specialist practitioners in their specific field of action within community-oriented medicine.

Target audience

Qualified physicians in compliance with all the official standards of the Ministry of Education and of the Ministry of Health. They must have the highest moral values, be ethical and congruent with the profession they have chosen to practice. Moreover, they must be willing to work in multidisciplinary teams, interested in conducting research to the highest quality standards, proficient in their native language and a second language, well-presented and respect patients, staff and the institution in which they provide their services.

For admission to the Residency in Anesthesiology of the School of Medicine and Health Sciences of Tecnológico de Monterrey, candidates must satisfactorily meet all the graduate admissions requirements of Tecnológico de Monterrey and of the Ministry of Health.

Research areas

Quality and Safety in Anesthesiology

Our department of Anesthesiology sees the investigation and resolution of clinical problems in our environment as imperative. The continuous exploration of small factors that turn out to be great contributions in reducing anesthetic risk is of vital importance to improve local and regional practice. The teaching team focuses its methodological design on the implementation of methods to assess the patient's perception of the care received, analysis of exposure to ionizing radiation or volatile agents by anesthesiology staff, determination of cost benefit of drug use, current treatment models, review of safety standards in patient management, and repercussions of the establishment of legal guidelines in the regulation of patient care in relation to anesthesiology, are the works derived from this line of research.

Pain Medicine

Perioperative pain, in its acute and chronic qualities, has a multifactorial origin, evolution and clinical outcome. Every week there are advances in the knowledge of each stage, so that the Multicentric Anesthesiology program focuses on the study of regional singularities in terms of pain treatment, and its evolution; as well as checking what other authors reported in their publications. In this way, an overview of the evidence is obtained with individualization to our area of influence. The focus of the department is directed towards the elaboration of works about the study of the process of reducing pain or inducing states of insensitivity to it by active intervention or by Neuromodulation in the different clinical pharmacological resources administered to the patient in his natural history of disease.

Campus that offer this program

Campus	Number of periods offered	From	Closed for new students
Monterrey	Complete	Resid Espec Mar-Aug 2013	

Last update: 06/December/2012

Graduate Requirements

To obtain a specialty degree, a master's degree or Ph. D. degree at Tecnológico de Monterrey, students are required to:

1. Have completely finished the undergraduate cycle prior to passing the first course in the curriculum of the specialty, master program, medical residency, or doctoral program.
2. Have fulfilled, in compliance with existing standards, the academic prerequisites of the corresponding program, through proficiency tests or the corresponding remedial courses.
3. Have obtained a bachelor degree—with the antecedent of high school or its equivalent—that is equivalent to those offered by Tecnológico de Monterrey.
4. Have covered all the courses in the given curriculum, either by passing the courses at Tecnológico de Monterrey or by obtaining revalidation or equivalence agreements—in compliance with the standards—corresponding to part of the courses taken at other institutions, and passed the remaining courses at Tecnológico de Monterrey. Courses taken at foreign universities with which there are agreements are considered, for the effects of this article, as courses taken at Tecnológico de Monterrey, as long as they do not exceed a set percentage of the curriculum established by each graduate program.
5. In those curricula that so specify, to have prepared a research project or thesis that, having been defended before an academic committee, has been approved by said committee.
6. Have taken at least the equivalent of the second half of the corresponding curriculum at Tecnológico de Monterrey, in the case of students with revalidation or equivalence agreements at this level. Flexibility may be exercised in this standard in graduate programs that, under agreement, may be established jointly with other universities.