

In-Training Examination (ITE) Blueprint

Purpose of the In-Training Examination

The In-training Examination (ITE) is a formative exam designed to evaluate a resident's progress toward meeting the educational objectives of the continuum of education in anesthesiology, which consists of four years of full-time training after the medical or osteopathic degree has been conferred. The continuum consists of a clinical base year and 36 months of approval training in anesthesia (CA-1, CA-2 and CA-3 years).

Exam Content

The ITE covers both basic and advanced topics in the following four content categories:

- Basic Sciences
- Clinical Sciences
- Organ-based Clinical Sciences
- Special Problems or Issues in Anesthesiology

Each ITE form is built to the same content specifications, known as an exam blueprint. The exam blueprint is used to ensure that every ITE form measures the same depth and breadth of content knowledge. The data below shows the number and relative percentage of questions from each of the four content categories that will appear on the ITE.

I. Basic Topics in Anesthesiology (50%)

Content Category (Relative Percentage)	Number of Questions
Basic Sciences (12%)	21 – 29
Clinical Sciences (17%)	29 – 43
Organ-Based Basic & Clinical Sciences (19%)	30 – 46
Special Problems or Issues in Anesthesiology (2%)	2 – 6

II. Advanced Topics in Anesthesiology (50%)

Content Category (Relative Percentage)	Number of Questions
Basic Sciences (3%)	5 – 7
Clinical Sciences (5%)	9 – 11
Organ-Based Advanced Clinical Sciences (16%)	30 – 34
Clinical Subspecialties (23%)	44 – 48
Special Problems or Issues in Anesthesiology (3%)	6 – 7

Exam Specifications

The ITE consists of 200 questions, and residents have up to four hours to complete the exam. The ITE includes A-type items only. A-type questions are single-best-answer multiple-choice questions that require the application of knowledge rather than simple recall of factual information. These questions often include a brief clinical vignette followed by a lead-in question and three response options. The ITE includes questions that reference static images.

Exam Administration

The ITE is administered annually to any physician enrolled in an ACGME-accredited anesthesiology residency training program. The ITE is an online exam that is administered at residency programs. The ITE is available to be administered anytime during a five-day window each year.

Residency program staff may schedule residents to take the ITE any time during the administration window. They may administer the exam to successive groups of residents on a single day or across multiple days, depending on what is most convenient for their site.

I. Basic Topics in Anesthesiology (50%)

Content Category (Relative Percentage)	Number of Questions
BASIC SCIENCES (12%)	21 – 29
Anatomy	5 – 7
Physics, Monitoring & Anesthesia Delivery Devices	5 – 7
Mathematics	2 – 4
Pharmacology	9 – 11
CLINICAL SCIENCES (17%)	29 – 43
Evaluation of the Patient & Preoperative Preparation	5 – 7
Regional Anesthesia	4 – 6
General Anesthesia	7 – 9
Monitored Anesthesia Care & Sedation	1 – 3
Intravenous Fluid Therapy During Anesthesia	4 – 6
Common Complications	4 – 6

Postoperative Care	4 – 6
ORGAN-BASED BASIC & CLINICAL SCIENCES (19%)	30 – 46
Central & Peripheral Nervous Systems	4 – 6
Respiratory System	5 – 7
Cardiovascular System	6 – 8
Gastrointestinal/Hepatic Systems	3 – 5
Renal & Urinary Systems/Electrolyte Balance	3 – 5
Hematologic System	3 – 5
Endocrine & Metabolic Systems	3 – 5
Anatomy and Physiology of Neuromuscular Junction	3 – 5
SPECIAL PROBLEMS OR ISSUES IN ANESTHESIOLOGY (2%)	2 – 6
Physician Impairment or Disability	1 – 3
Ethics, Practice Management & Medicolegal Issues	1 – 3

II. Advanced Topics in Anesthesiology (50%)

Content Category (Relative Percentage)	Number of Questions
BASIC SCIENCES (3%)	5 – 7
Physics, Monitoring & Anesthesia Delivery Devices	2 – 4
Pharmacology	2 – 4
Interpreting Data	2 – 3
CLINICAL SCIENCES (5%)	9 – 11
Regional Anesthesia	5 – 7
Special Techniques	3 – 5
ORGAN – BASED ADVANCED CLINICAL SCIENCES (16%)	30 – 34
Central & Peripheral Nervous Systems	4 – 6
Respiratory System	4 – 6
Cardiovascular System	4 – 6
Gastrointestinal/Hepatic Systems	2 – 4
Renal & Urinary Systems/Electrolyte Balance	3 – 5
Hematologic System	3 – 5
Endocrine & Metabolic Systems	2 – 4
Neuromuscular Diseases & Disorders	2 – 4
CLINICAL SUBSPECIALTIES (23%)	44 – 48
Painful Disease States	7 – 9
Pediatric Anesthesia	7 – 9
Obstetric Anesthesia	7 – 9
Otorhinolaryngology (ENT) Anesthesia	1 – 3
Anesthesia for Plastic Surgery	0 – 2

Anesthesia for Laparoscopic Surgery	0 – 2
Ophthalmologic Anesthesia	0 – 2
Orthopedic Anesthesia	1 – 3
Trauma Anesthesia	1 – 3
Anesthesia for Ambulatory Surgery	1 – 3
Geriatric Anesthesia/Aging	1 – 3
Critical Care	8 – 10
SPECIAL PROBLEMS OR ISSUES IN ANESTHESIOLOGY (3%)	6 – 7
Electroconvulsive Therapy	0 – 2
Organ Donors	0 – 2
Radiologic Procedures	1 – 3
Ethics and Medico-Legal Issues	1 – 3
Practice Management	0 – 1
Quality Improvement and Patient Safety	0 – 1
Diversity, Equity, and Inclusion (DEI) in Health Care	0 – 1
Healthcare Disparities	0 – 1