

APPLIED Exam Objective Structured Clinical Examination (OSCE) Content Outline

Each OSCE scenario will address one of the following skills.

A. Communications & Professionalism

1. Discussion of Treatment Options and Informed Consent (*Obtain informed consent from a patient or authorized health care proxy*)

The successful candidate will demonstrate the following behaviors:

- Demonstrates understanding of and concern for the situation of the patient
- Explains the indications for the proposed treatment options
- Explains conduct of proposed treatment options in lay terms
- Explains benefits and risks of treatment options, including both less severe/more common and more severe/less common relevant risks
- Discusses strategies for minimizing risks of the treatment options
- Elicits questions and responds appropriately in lay terms
- Confirms a final decision with the patient or authorized health care proxy regarding the treatment options and obtains affirmative consent without coercion

2. Peri-procedural complications (*Conduct a focused evaluation of a peri-procedural complication, formulate an action plan, and discuss this plan with the patient or designee*)

The successful candidate will demonstrate the following behaviors:

- Elicits history relevant to the complication and current symptoms
- Performs focused physical evaluation
- Discusses potential causes and contributing factors
- Discusses anticipated, likely, and potential outcomes
- Presents plan for further evaluation and/or treatment
- Elicits questions and responds in lay terms
- Demonstrates understanding of and concern for the situation of the patient

3. Ethical issues (*Frame and discuss appropriate plans to address common ethical dilemmas in clinical care settings*)

Anesthesiologists face ethical issues related to patients, colleagues, organizations, and society. To identify and frame ethical questions productively, anesthesiologists must understand ethical principles and act in a manner consistent with current ethical practices including core principles of respect for patient autonomy, beneficence, non-maleficence, accountability, ethical fidelity (promise keeping, trustworthiness), and social and distributive justice.

A successful candidate will demonstrate the ability to identify and address ethical issues by obtaining relevant information, clarifying options, determining preferences, negotiating differences, and arriving at a decision with patients, families, and other stakeholders as they relate to, for example:

- Allocation of resources
- Barriers to access to healthcare
- Care decisions involving family members or surrogate decision makers
- Confidentiality and privacy
- Decision-making capacity, informed consent, informed refusal, and voluntariness
- Diversity, equity, and inclusion identification and management in clinical and organizational situations
- Ethical obligations toward fellow clinicians
- Treatment of patients receiving investigational therapies or research protocols

- Life-sustaining medical treatment (e.g. end-of-life management)
- Procurement and allocation of organs
- Potentially inappropriate treatment
- Recognized or potential conflicts of interest

4. Communication with other professionals (*Effectively communicate with other healthcare team members in a professional manner*)

The successful candidate will demonstrate the following behaviors:

- Communicate in a clear and professional manner
- Prioritize communication of information most relevant to patient care
- Demonstrate understanding of the concerns and perspective of other health care professionals through active listening
- Recognize the potential for conflict and initiate conflict resolution

Candidates may also be asked to demonstrate understanding and application of team- related skills, including:

- Leadership - team orientation and coordination
- Mutual performance monitoring
- Backup behavior
- Adaptability
- Providing formative feedback and facilitated debriefing

5. Practice-based Learning and Improvement (*Articulate and apply principles of patient safety and quality improvement to a clinical scenario*)

The successful candidate will demonstrate behaviors consistent with the application of commonly accepted elements of quality improvement processes, including those directed toward patient safety; these elements include the following:

- Measure current outcomes and benchmarks
- Devise change in practice in collaboration with stakeholders
- Educate and train clinicians regarding change in practice
- Implement change in practice
- Measure outcomes after change in practice

B. Technical Skills

1. Interpretation of monitors (*Identify clinical conditions associated with patterns of data presented on monitors*)

The candidate will be presented with simulated monitors which will include relevant parameters from the list below:

- Electrocardiogram
- Arterial blood pressure: non-invasive (value) or invasive (waveform and value)
- Central venous pressure – waveform and value
- Pulmonary arterial pressure – waveform and value
- Pulmonary artery occlusion pressure - value
- Cardiac output - value
- Mixed venous oxygen saturation - value
- Pulse oximetry – waveform and value
- Capnography – waveform and end tidal value
- Qualitative and quantitative neuromuscular blockade – value (testing to start in 2026)
- Fetal heart rate monitor – waveform and value (testing to start in 2026)
- Airway pressure – waveform and peak, PEEP values
- Airway flow - waveform
- Tidal volume – waveform and end-tidal values
- Respiratory rate, Inspiratory and Expiratory Times
- Flow-volume loops - waveform
- Temperature - value

The successful candidate will integrate this information to identify clinical conditions chosen from among the following areas:

- a. Perioperative cardiac events
 - b. Perioperative respiratory events
 - c. Other perioperative/peripartum events
 - d. Ventilatory modes used in normal and critically ill patients
2. Interpretation of echocardiograms and surface ultrasound of lung (*Interpret basic transthoracic or transesophageal, lung and pleura images relevant to anesthesia practice*)
- The successful candidate will be able to use 2-dimensional and color flow Doppler, and M-mode (lung ultrasound) to identify relevant anatomy, make qualitative diagnostic assessments, and provide treatment recommendations. Exam will not include pulsed-wave and continuous-wave Doppler. Scenarios may include the following:
- a. Biventricular function and wall motion
 - b. Presence or absence of an atrial septal defect
 - c. Volume status assessment- hypovolemia and response to volume therapy
 - d. Pulmonary emboli
 - e. Air emboli
 - f. Basic valvular lesions
 - g. Pericardial effusions
 - h. Aortic dissection
 - i. Pleural effusion
 - j. Pneumothorax
 - k. Pulmonary edema

Transesophageal echocardiography images may include any of the following 11 standard views:

- a. Midesophageal Four Chamber
- b. Midesophageal Two Chamber
- c. Midesophageal Long Axis
- d. Midesophageal Ascending Aortic Long Axis
- e. Midesophageal Ascending Aortic Short Axis
- f. Midesophageal Aortic Valve Short Axis
- g. Midesophageal Right Ventricular Inflow-Outflow
- h. Midesophageal Bicaval
- i. Transgastric Midpapillary Short Axis
- j. Descending Aortic Short Axis
- k. Descending Aortic Long Axis

Transthoracic echocardiography images may include any of the following 5 standard views:

- a. Parasternal Long Axis
- b. Parasternal Short Axis (Left Ventricle Midpapillary)
- c. Apical Four Chamber
- d. Subcostal Four Chamber
- e. Subcostal IVC Assessment

Lung and diaphragm images may include:

- a. Lung
- b. Pleura
- c. Diaphragm
- d. Artifacts (A-lines, B-lines)

Abdominal ultrasound images will include (testing to start in 2026)

- a. Right Upper Quadrant
- b. Left Upper Quadrant

- c. Pelvis
- d. Gastric

3. Application of ultrasonography (*Identify relevant normal anatomy using ultrasonography*)

The successful candidate will identify the relevant anatomy using an ultrasound probe with a simulated patient and, where applicable, may be asked to demonstrate simulated needle placement technique for scenarios chosen from among the following procedures:

a. Vascular cannulation

- i. Internal jugular vein
- ii. Cubital fossa vessels
- iii. Radial artery
- iv. Femoral vessels

b. Nerve blocks

- i. Interscalene brachial plexus
- ii. Supraclavicular brachial plexus
- iii. Infraclavicular brachial plexus
- iv. Axillary brachial plexus
- v. Transversus abdominis plane (TAP)
- vi. Femoral
- vii. Adductor canal (saphenous)
- viii. Popliteal sciatic

c. Point of care ultrasound

i. Heart

- Parasternal Long Axis
- Parasternal Short Axis (Left Ventricle Midpapillary)
- Apical Four Chamber
- Subcostal Four Chamber
- Subcostal IVC View

ii. Lung Pleura

- Diaphragm
- Artifacts (A-lines, B-lines)

iii. Abdomen (testing to start 2025)

- Right upper quadrant (assessment for free fluid)
- Left upper quadrant (assessment for free fluid)
- Pelvis (assessment for free fluid)
- Gastric (assessment of content and volume)