

**VIRGINIA COMMONWEALTH UNIVERSITY  
SCHOOL OF MEDICINE OBJECTIVES**

**KNOWLEDGE**

**The School of Medicine will ensure that before graduation a student will have demonstrated, to the satisfaction of the faculty, the following:**

The capacity to recognize the limitations in one's knowledge and clinical skills and to make a commitment to engage in lifelong learning

Knowledge of the normal structure and function of each of the major organ systems of the body and the current basic scientific mechanisms operative at the systemic, cellular, and molecular levels

Knowledge of the various causes (genetic, developmental, metabolic, toxic, microbiologic, immune, psychosocial, neoplastic, traumatic, and degenerative) of illnesses and diseases

Knowledge of the altered structure and function of the body and its major organ systems that are seen in various illnesses and diseases

Knowledge of the scientific method in establishing the causation of disease and efficacy of traditional and non-traditional therapies

Knowledge of health care policy and the economic, psychological, social, and cultural factors that affect health and health care delivery

Knowledge of the most frequent clinical, laboratory, radiographic, and pathologic manifestations of common as well as life threatening diseases

Knowledge about relieving pain and ameliorating the suffering of patients

Knowledge of the epidemiology of diseases and the systematic approaches useful in promoting health

Knowledge of techniques of patient education and counseling in basic lifestyle changes/prevention

Knowledge of and approaches to reduce the psychological and physical risks and stresses of the practice of medicine

## **SKILLS**

**The School of Medicine will ensure that before graduation a student will have demonstrated, to the satisfaction of the faculty, the following:**

The ability to obtain an accurate medical history and the ability to perform both a complete and an organ specific examination, including a mental status examination (*See appendix A*)

The ability to perform routine technical procedures (*See appendix B*)

The ability to interpret the results and be aware of the indications, complications, and limitations of commonly used diagnostic procedures (*See appendix C*)

The ability to demonstrate knowledge of theories and principles that govern ethical decision making

The ability to reason deductively and inductively in solving clinical problems

The ability to construct appropriate differential diagnoses and treatment plans for patients with common conditions, both acute and chronic, including medical, psychiatric, and surgical conditions, and those requiring short- and long-term rehabilitation

The ability to recognize patients with immediate life threatening conditions regardless of etiology, and to institute appropriate initial therapy

The ability to recognize and outline an initial course of management for patients with serious conditions requiring critical care

The ability to communicate effectively, both orally and in writing, with patients, patients' families, colleagues, and others with whom physicians must exchange information in carrying out their responsibilities

The ability to select appropriate tests for detecting patients at risk for specific diseases and to determine strategies for responding appropriately

The ability to retrieve, critically review, and effectively utilize biomedical information from electronic databases and other resources for solving problems and making decisions that are relevant to the care of individuals and populations

The ability to evaluate the economic, psychosocial, and cultural factors that impact the health of patients and families and to incorporate these into assessment and treatment plans

## **ATTITUDES**

**The School of Medicine will ensure that before graduation a student will have demonstrated, to the satisfaction of the faculty, the following:**

A commitment to advocate the interests of one's patients

Compassionate treatment of patients, and respect for their privacy and dignity

Honesty and integrity and dutifulness in all interactions with patients, their families, colleagues, and others with whom physicians interact

An understanding of, and respect for, the roles of other health care professionals, and the need to collaborate with others in caring for patients and promoting health

A commitment to provide care to patients who are unable to pay and to advocate for access to health care for members of underserved populations

**APPENDIX A**  
**HISTORY/PHYSICAL EXAMINATION SKILLS**

**The graduate will be competent in the performance of comprehensive physical, genetic, functional, and mental status examinations, including:**

**Comprehensive History – Adult**

- a) source and reliability
- b) chief complaint
- c) present illness
- d) past history
- e) current health status (allergies, immunizations, screening tests, environmental hazards, use of safety measures, exercise and leisure, sleep, diet, current medications, tobacco, alcohol, and other substances)
- f) sexual history
- g) family history
- h) psychosocial history
- i) pain assessment
- j) review of systems
- k) risk factors for common illnesses and accidents (presence of guns in house)
- l) preventive measures (suicide, domestic violence)
- m) end of life issues

**Comprehensive History – Child and Adolescent**

(As per adult history with modifications that take into account age-related differences, the patient's chronological age and state of development, and including relevant data on the following)

- a) birth history (prenatal, natal, and neonatal)
- b) feeding history (breast feeding, infancy, childhood habits)
- c) growth and development (physical growth, developmental milestones, social and educational development)
- d) childhood illnesses
- e) home environment (adequacy of care, risk of accidental injury)

## Comprehensive History – Geriatric

(As per adult history with modifications that take into account age-related differences)

- a) preventive measures (fall protection, driving, adequate home lighting)
- b) psychosocial factors (adequacy of care giver support), socialization, isolation
- c) activities of daily living
- d) adequacy of nutrition
- e) review of systems to include continence, special senses
- f) cognitive impairment

## General Physical examination including:

- a) vital signs
- b) skin and lymphatics
- c) head, eyes, ears, nose, throat
- d) neck
- e) chest wall and back
- f) heart
- g) lungs
- h) breasts
- i) abdomen
- j) external genitalia, male and female
- k) pelvic
- l) rectal
- m) extremities
- n) joints
- o) pulses and general peripheral vascular exam
- p) complete neurological exam
- q) complete mental status exam
- r) general functional assessment

## Special Examinations

- a) pediatric physical examination
- b) psychiatric examination
- c) rapid and focused examination in an emergency situation
- d) geriatric examination

**APPENDIX B**  
**CLINICAL PROCEDURES**

**The graduate will be competent to personally perform, and will be aware of the indications, complications, and limitations of routine clinical procedures including:**

- a) venipuncture, including blood cultures
- b) starting an IV
- c) CPR, basic
- d) arterial puncture (for blood gases)
- e) emergent, temporary immobilization of cervical spine fracture
- f) control of gross external hemorrhage
- g) insert nasogastric tube
- h) work with sterile technique (e.g., gloving, sterile dressing change)
- i) apply temporary/emergency splint
- j) throat swab
- k) suturing lacerations
- l) injections: intradermal, sub-Q, IM, IV
- m) placement of Foley catheter: male, female
- n) incision and drainage of superficial lesions
- o) fluorescein staining and examination of the eye
- p) fecal occult blood
- q) standard and transmission-based precautions for the prevention of transmission of infectious agents

**APPENDIX C**  
**CLINICAL PROCEDURES**

**The graduate will be aware of the indications, complication, and limitations of frequently used laboratory and diagnostic tests as well as be able to interpret the written results of these including:**

- a) basic radiographic imaging studies
- b) basic cardiac ultrasound and Doppler studies
- c) basic pelvic and abdominal ultrasound
- d) basic noninvasive vascular studies
- e) anatomic pathology
- f) immunologic studies
- g) genetic studies, constructing an appropriate pedigree
- h) EKG and holter monitor study
- i) EEG
- j) EMG
- k) PFTs
- l) spirometry
- m) blood chemistry
- n) hematology
- o) cytology
- p) culture and sensitivities
- q) drug, antibiotic levels
- r) ABGs
- s) coagulation studies
- t) pap smear
- u) stool for ova and parasites
- v) CSF smear
- w) gram stain

**The graduate will be aware of the indications, complications, and limitations of more complex or specialized clinical procedures including:**

- a) lumbar puncture
- b) endotracheal tube placement
- c) ventilator management
- d) complete ACLS
- e) normal and complicated vaginal deliveries
- f) Cesarean section
- g) thoracentesis
- h) placement of central venous catheter and parenteral nutrition management
- i) casting non-displaced, closed fractures
- j) indirect laryngoscopy
- k) intestinal endoscopy and biopsy
- l) flexible bronchoscopy

- m) insertion of arterial canula
- n) placement of Swan-Ganz catheter
- o) percutaneous organ biopsy
- p) bone marrow aspiration
- q) transtracheal aspiration
- r) joint aspiration
- s) abdominal paracentesis
- t) cardioversion
- u) direct laryngoscopy
- v) tonometry
- w) breast, thyroid mass aspiration
- x) diagnostic peritoneal lavage
- y) reduction of fractures
- z) temporary transvenous pacemaker
- aa) pericardiocentesis
- bb) peritoneal dialysis
- cc) skin biopsy (punch and resection)
- dd) exercise stress testing
- ee) electro-and cryosurgical removal of skin lesions