

Medical University of the Americas

CLINICAL MEDICINE PROGRAM

Educational Goals:

The educational goals of the Clinical Medicine program are (a) to provide the student with the impetus, structure, and guidance to integrate their basic science knowledge into excellent clinical practice; (b) to provide the student with a comprehensive overview of medical practice, to gain an understanding of the relationships among the different disciplines and areas of specialization; (c) to provide the student an opportunity to experience the various areas of medical practice in which they might later specialize during residency training and practice; and (d) to prepare the student to function effectively and develop the skills necessary to enhance their chosen profession as a physician.

Program Structure:

In the Clinical Medicine program the student participates in patient care while rotating through various medical specialties in hospitals which have affiliation agreements with the Medical University of the Americas. Specific activities include history taking, physical examinations, laboratory analysis, case presentations, clinical workshops, and professional conferences. Required core rotations are (1) Internal Medicine, (2) Surgery, (3) Obstetrics-Gynecology, (4) Pediatrics, and (5) Psychiatry. Core rotations cover 42 weeks of training. Elective rotations comprise another 30 weeks of training. The total Clinical Medicine program is 72 weeks. Clinical faculty provide guidance to help the student select clinical rotations that will enhance their overall medical education and future professional endeavors.

Core Clerkships

Medicine	12 weeks
Surgery	12 weeks
Obstetrics/Gyn	6 weeks
Pediatrics	6 weeks
Psychiatry	<u>6 weeks</u>
	42 weeks

Elective Clerkships

Electives to be selected by student: 30 weeks
(see list below)

Elective Possibilities: General Medicine; Family Practice; Surgical subspecialties (Orthopedics, Neurosurgery, Cardiothoracic Surgery, ENT, etc.); Endocrinology, Cardiology, Gastroenterology, Hematology, Nephrology, Infectious Disease, Oncology, Pulmonology, Rheumatology, Emergency Medicine, Rehabilitation Medicine, Occupational Medicine, Allergy and Immunology, Critical Care Medicine, Preventive Medicine, and Sports Medicine.

Responsibilities of Clinical Medicine Faculty

1. Supervise all aspects of the student's clinical education in accordance with stated school objectives and program requirements. Learning objectives are provided by the University to be supplemented as needed by the preceptor to structure the student's readings.
2. Insure that students attend all required lectures, complete readings, and facilitate the students' exposure to relevant clinical experiences.
3. Review the clerkship students' patient care log book every week.
4. Meet with members of Medical University Clinical Medicine program periodically to review and evaluate the overall clinical program.
5. Furnish an evaluation of each student's performance in each clerkship by completing the Medical University of the Americas Evaluation Form.

Core Clinical Medicine Curriculum (Suggested Experiences)

Third and fourth year medical students are to be exposed to a variety of different patients and clinical experiences. The following material is provided to help focus on those clinical experiences and problems that will greatly facilitate the student's overall knowledge of medicine and integrate into their core knowledge base to produce effective physicians.

For each of the core clinical rotations, we have provided a list of various medical conditions in the expectation that the student will be assigned at least one patient with a particular disease process.

Suggested Experiences for Core Clinical Rotations

GENERAL SURGERY (12 Weeks)

1. The Acute Abdomen
2. Abdominal-thoracic trauma
3. Shock
4. Neoplasm of chest
5. Neoplasm of gastrointestinal tract
6. Hernia repair
7. Burn injury
8. Peripheral arterial disease
9. Head injury
10. Biliary tract disease
11. Nutritional needs of surgical patients
12. Wound care

INTERNAL MEDICINE (12 weeks)

1. Ischemic Heart Disease
2. Hypertension
3. Chronic Obstructive Pulmonary Disease
4. Osteo- and rheumatoid arthritis
5. Anemia
6. Diabetes Mellitus, Type I and Type II
7. Renal insufficiency
8. Neoplasms
9. Fever of uncertain etiology
10. Cerebrovascular accident
11. Hepato-biliary disease
12. Gastritis, PUD, GERD
13. Acquired Immune Deficiency Syndrome
14. Infectious diseases
15. Coronary and Valvular Heart Disease
16. General Prevention

PEDIATRICS (6 weeks)

1. Normal growth & development
2. Well baby examination
3. Care of the premature infant
4. Asthma
5. GI Disease
6. Infections (esp. neonatal and infancy)
7. Cardiac/Hematologic disorders
8. Child Abuse
9. Immunization protocols & Prevention of childhood diseases

PSYCHIATRY (6 weeks)

1. Schizophrenia (new onset/chronic)
2. Anxiety - phobias and panic disorder
3. Delirium/Dementia
4. Acute psychosis/psychiatric emergencies
5. Chemical dependency (drugs/alcohol)
6. Mood disorders
7. Somatoform disorders
8. Personality disorders (Cluster B)
9. Mental status examination
10. Psychotropic agents

OBSTETRICS - GYNECOLOGY (6 weeks)

1. Normal gynecological exam (incl. breast/pap smear)
2. Normal term pregnancy and vaginal delivery
3. Medical complications of pregnancy
4. Abnormal obstetrics
5. Sexually transmitted diseases
6. Gynecologic neoplasm
7. Disorders of menstruation
8. Infertility - Sterility
9. AIDS/substance abuse in pregnancy
10. Prevention of Birth Defects

CLERKSHIP OBJECTIVES

INTERNAL MEDICINE ROTATION

UNIT I HISTORY AND PHYSICAL EXAMINATION

- A. The student will take a thorough patient history to include:
 - 1. Obtaining demographic data
 - 2. Chief complaint
 - 3. History of present illness
 - 4. Past medical history
 - 5. Family medical history
 - 6. Social History
 - 7. Complete review of systems

- B. The student will perform a thorough physical examination on each patient to include:
 - 1. General appearance
 - 2. Skin & Lymph nodes
 - 3. Head and Neck
 - 4. Thorax and Lung
 - 5. Heart and Peripheral Blood Vessels
 - 6. Abdomen/Pelvis/Rectum
 - 7. Extremities
 - 8. Neurological exam/Mental Status

- C. The history and physical examination will be performed in an accurate, timely manner and recorded in a systematic and legible form.

- D. The student will demonstrate awareness of initial laboratory diagnostic procedures to support or rule out the provisional differential diagnosis.

- E. The student will be able to present pertinent findings from the history and physical examination to formulate a provisional differential diagnosis and treatment plan utilizing the SOAP format.

UNIT II CARDIOVASCULAR DISEASES

- A. The student will demonstrate a thorough understanding of the structure and physiological function of the heart and blood vessels.

- B. The student will demonstrate proficiency in the examination of the cardiovascular system and be able to report normal and abnormal findings.

- C. The student will be able to discuss diagnostic testing and procedures used in the evaluation of patients with cardiovascular disease.

D. The student will demonstrate proficiency in the basic interpretation of normal and abnormal ECG patterns.

E. The student will be able to discuss the evaluation, diagnosis and treatment of patients with the following cardiovascular disease processes:

1. Ischemic Heart Disease
2. Hypertensive Cardiovascular Disease
3. Stroke
4. Congestive Heart Failure
5. Arrhythmias
6. Valvular Heart Disease
7. Common Congenital Heart Disease
8. Major Aortic Disease
9. Peripheral Vascular Disease
10. Venous Disease
11. Thromboembolic Disease
12. Pulmonary Embolism
13. Pericardial Disease

UNIT III DISEASES OF THE RESPIRATORY SYSTEM

A. The student will demonstrate a thorough understanding of pulmonary anatomy, physics of ventilation and the physiology of tissue gas exchange.

B. The student will demonstrate proficiency in the evaluation of the pulmonary status of the patient through the physical examination and evaluation of diagnostic findings such as chest x-ray, arterial blood gasses, pulmonary function tests and imaging procedures.

C. The student will be able to discuss the evaluation, diagnosis and treatment of patients with the following pulmonary disease processes:

1. C.O.P.D. and emphysema
2. Asthma
3. Lung Cancer
4. Chronic Bronchitis
5. Diffuse infiltrative lung disease to include pneumoconiosis, sarcoidosis, collagen vascular disease and hypersensitivity disorders
6. Pulmonary vascular disease to include embolism and pulmonary hypertension
7. Pneumonia- acute and chronic
8. Tuberculosis
9. Disorders of the pleural space, chest wall and mediastinum
10. Bronchiectasis
11. Cystic Lung Disease
12. Adult Respiratory Distress Syndrome
13. Inhalation and environmental pulmonary injury

UNIT IV RENAL DISEASE

- A. The student will demonstrate a thorough knowledge of renal anatomy, physiology and normal homeostatic functions as well as the pathophysiology of major fluid and electrolyte disorders.

- B. The student will review renal assessment techniques to include urinalysis and renal imaging studies.

- C. The student will be able to discuss the evaluation, diagnosis and treatment of patients with the following major renal disease processes:
 - 1. Glomerular diseases to include acute nephritic syndrome, glomerulonephritis and nephrotic syndrome
 - 2. Acute Renal Failure
 - 3. Chronic Renal Failure
 - 4. Hypertension and vascular disorders of the kidney
 - 5. Cystic disease
 - 6. Stone disease
 - 7. Neoplasms
 - 8. Prostatic disease

UNIT V GASTROINTESTINAL DISEASE

- A. The student will demonstrate knowledge of major gastrointestinal structures and function and the assessment of common presenting gastrointestinal symptoms.

- B. The student will be familiar with current gastrointestinal assessment techniques to include radiography, ultrasonography and endoscopic procedures.

- C. The student will be able to discuss the evaluation, diagnosis and treatment of gastrointestinal diseases to include:
 - 1. Common diseases of the esophagus, stomach and duodenum to include disorders of motility, Reflux, P.U.D. and Zollinger-Ellison Syndrome
 - 2. Inflammatory Bowel Disease
 - 3. Neoplasms of the gastrointestinal system
 - 4. Pancreatic disease

UNIT VI DISEASES OF THE LIVER AND BILIARY SYSTEM

- A. The student will review basic hepatic and biliary anatomical structures and discuss pertinent laboratory tests and imaging techniques.
- B. The student will review the pathophysiology of common presenting symptoms such as jaundice and biliary and gallbladder pain.
- C. The student will be able to discuss the evaluation, diagnosis and treatment of common hepato-biliary diseases such as:
 - 1. Acute and chronic Hepatitis
 - 2. Cirrhosis of the liver
 - 3. Hepatic neoplasms
 - 4. Biliary Disease to include cholecystitis, cholelithiasis, acute cholangitis and neoplasms

UNIT VII HEMATOLOGICAL DISEASES

- A. The student will be thoroughly familiar with the evaluation of hematological data to include a hemogram, bone marrow studies, iron indices, etc.
- B. The student will be able to discuss the evaluation, diagnosis and treatment of the following hematologic disease states:
 - 1. Anemias
 - 2. Leukocyte disorders
 - 3. Hematologic malignancies to include leukemias and lymphomas
 - 4. Coagulation disorders and hypersplenism
 - 5. Blood product therapy and complications

UNIT VIII METABOLIC AND ENDOCRINE DISEASES

- A. The student will review the biochemical origins and discuss the evaluation and treatment of common metabolic diseases to include:
 - 1. Hyperuricemia and Gout
 - 2. Hyperlipidemias
 - 3. Various disorders to include Wilson's Disease, Fanconi's Syndrome, Marfan's Syndrome, Hurler's Syndrome, McArdle's Disease
- B. The student will demonstrate a thorough knowledge of the physiology of the hypothalamic-pituitary axis and common disease states.
- C. The student will discuss the normal physiology of the thyroid and adrenal glands and be familiar with the evaluation, diagnosis and treatment of:

1. Hyperthyroidism and hypothyroidism
2. Thyroiditis and thyroid carcinoma
3. Syndromes of adrenocortical insufficiency and hyperfunction to include Addison's and Cushing's Diseases and Pheochromocytoma

D. The student will review common conditions related to androgen and estrogen deficiency and excess.

E. The student will demonstrate a thorough knowledge of the evaluation, diagnosis and treatment of Type I and Type II Diabetes Mellitus as well as the causes and treatment of Hypoglycemia.

UNIT IX DISEASES OF BONE, MUSCLE AND CONNECTIVE TISSUE

A. The student will review the physiology of bone growth and mineral metabolism and be familiar with the evaluation, diagnosis and treatment of:

1. Hypercalcemia and hypocalcemia
2. Osteomalacia, Rickets, osteoporosis and Paget's Disease of bone
3. Rheumatoid Arthritis, SLE, Sjogren's Syndrome, scleroderma, polymyositis
4. Vasculitides to include polyarteritis nodosa, Wegner's granulomatosis, polymyalgia rheumatica and giant cell arteritis
5. Osteoarthritis, ankylosing spondylitis, Reiter's syndrome and psoriatic arthritis

UNIT X INFECTIOUS DISEASES

A. The student will review the normal physiology of the human immune system.

B. The student will be thoroughly familiar with laboratory methods to evaluate common infectious processes.

C. The student will demonstrate detailed knowledge of the causes and treatment of febrile illnesses, bacteremia and septicemia.

D. The student will be familiar with the diagnosis and treatment of common infectious diseases of the following organ systems:

1. Head and neck, especially ear and throat infections
2. The chest to include lower respiratory tract pneumonias, rheumatic fever, bacterial endocarditis, and tuberculosis
3. Skin and soft tissue infections
4. Acute infectious diarrhea, peritonitis and intra-abdominal abscesses
5. Sexually transmitted diseases
6. HIV infection, AIDS and infections of the immunocompromised host
7. Bone and joint infections

UNIT XI DIAGNOSIS AND TREATMENT OF NEUROLOGIC DISEASES

- A. The student will demonstrate the ability to perform a detailed, thorough neurologic examination.
- B. The student will demonstrate knowledge of the indications and interpretation of diagnostic tools to include the lumbar puncture, CT scan and MRI, and electrophysiologic studies.
- C. The student will demonstrate a thorough knowledge of the evaluation, diagnosis and treatment of common neurologic disorders to include:
 - 1. Pathologic disorders of consciousness to include coma
 - 2. Dementia and Delerium
 - 3. Cerebrovascular disease and lesion localization
 - 4. Intracranial neoplasms
 - 5. Epilepsy
 - 6. Peripheral neuropathies
 - 7. Chronic pain syndromes
 - 8. Motor disorders to include muscular dystrophy, myasthenia gravis, Parkinson's disease, Huntington's chorea
 - 9. Headache and migraine syndrome

UNIT XII PRINCIPLES OF ONCOLOGY

- A. The student will be familiar with epidemiological distribution of common cancers.
- B. The student will be able to describe the clinical signs and symptoms of commonly occurring cancers and order appropriate diagnostic tests.
- C. The student will be familiar with the basic principles of cancer therapy.
- D. The student will be exposed to frequently applied forms of cancer therapy including risk/benefit factors, side effects and prognosis. The student will be exposed to discussions with patients and family about cancer.

CLERKSHIP OBJECTIVES

SURGERY ROTATION

UNIT I PRESURGICAL HISTORY AND PHYSICAL

- A. The student will perform a thorough presurgical history and physical according to the preceptor's instructions.
- B. The history will be performed in an accurate, timely manner and will be presented in a logical, legible form in both written and verbal presentations.
- C. The student will identify preoperative risk factors and be able to discuss their management prior to surgical intervention.

UNIT II MANAGEMENT PRINCIPLES OF THE SURGICAL PATIENT

- A. The student will understand the major homeostatic changes that take place during surgical procedures or as a result of trauma including:
 - 1. Endocrine and Metabolic changes
 - 2. Mediators of the injury response
 - 3. Methods of attenuating the catabolic response to injury and surgery
- B. The student will understand the causes of shock, the clinical evaluation of the patient in shock and the management of circulatory collapse in the surgical patient to include:
 - 1. Shock due to hypovolemia, sepsis
and neurogenic causes
 - 2. Shock due to compromised cardiac function.
- C. The student will demonstrate a thorough understanding of the physiology of fluid and electrolyte balance in the normal patient as well as the pathophysiology of fluid and electrolyte balance in the surgical patient.
- D. The student will be knowledgeable of the principles of blood transfusions and the management of surgical bleeding disorders to include:
 - 1. Normal hemostatic mechanisms
 - 2. Laboratory evaluation of hemostatic disorders
 - 3. Transfusion therapy of the surgical patient
 - 4. Substitute blood products
- E. The student will understand the principles of nutritional support of the patient after trauma or operation.

- F. The student will understand the principles of burn management to include:
1. Burn classification and initial therapy
 2. Long term wound care and complications of severe burns
- G. The student will demonstrate knowledge of the principles of surgical procedures to include:
1. Aseptic procedures in the operating room and adherence to universal precautions
 2. "The Sterile Field"
 3. Principles of Anesthesia
 4. Principles and methods of suturing
 5. Diagnosis and management of post-operative infections
 6. Control of hemorrhage
- H. The student will be able to discuss recognition and initial management of traumatic injuries to various parts of the human body.
- I. The student will be able to address the management of special surgical patient populations to include:
1. Diabetes Mellitus
 2. Acquired Immune Deficiency Syndrome
 3. Acute Renal Failure
 4. Pediatric patients

UNIT III GENERAL PRINCIPLES OF NEOPLASTIC DISEASE

- A. The student will be able to discuss the general principles of surgical oncology to include diagnosis and treatment.
- B. The student will be able to discuss the epidemiology, diagnosis and surgical management of common forms of neoplasms to include:
1. Carcinoma of the breast
 2. Colo-rectal cancer
 3. Cancer of the lung
 4. Carcinoma of the liver, pancreas and biliary system
 5. Carcinoma of the urogenital system
 6. Carcinomas of the skin
 7. Carcinoma of the larynx
 8. Neoplasms of bone

UNIT IV SURGICAL INTERVENTION IN COMMON ORGAN SYSTEMS

- A. The student should be familiar with the diagnosis and management of surgical disorders of the endocrine system to include:
1. The thyroid and parathyroid glands
 2. Multiple endocrine neoplasms
 3. The pituitary and hypothalamus
 4. The adrenal glands
- B. The student will be able to discuss the diagnosis and management of common surgical disorders of the digestive system to include:
1. The esophagus
 2. The acute abdomen
 3. The stomach and duodenum
 4. The small intestine and acute appendicitis
 5. The colon and rectum
 6. The liver, biliary system
 7. The pancreas and spleen
 8. Diagnosis and treatment of hernias
- C. The student will demonstrate knowledge of the general principles for the management of fractures and dislocations of the musculoskeletal system to include:
1. Classification of fractures
 2. Evaluation and treatment of major bone and joint structure injuries
- D. The student will demonstrate knowledge of the diagnosis and surgical treatment of major urogenital disorders to include:
1. Abnormalities of voiding
 2. The kidney and bladder
 3. The prostate
 4. The penis and testis
- E. The student will demonstrate thorough knowledge of the diagnosis and surgical treatment of major disorders of the lung, pleura and chest wall to include:
1. Lung Cancer
 2. Pleural effusion
 3. Pneumothorax and hemothorax
 4. Infections including tuberculosis
 4. Benign neoplasms
 5. Pulmonary embolism
 6. Pericardial disease

F. The student will demonstrate knowledge of the major disorders of the lymphatic system to include:

1. Lymphedema
2. Tumor and malformation
3. Lymphangitis

G. The student will have thorough knowledge and understanding of the surgical diagnosis and treatment of major disorders of the cardiovascular system to include:

1. Venous disorders; varicose veins, acute thrombophlebitis and ileofemoral venous thrombosis
2. Arterial disorders; embolic disease, aneurysm, ischemia due to stenosis/obstruction, pseudoaneurysm, aortic dissection
3. Major congenital cardiac abnormalities
4. Acquired cardiac disease; coronary artery disease, ventricular aneurysms, valvular disease

CLERKSHIP OBJECTIVES

PEDIATRIC ROTATION

UNIT I HISTORY AND PHYSICAL EXAMINATION

- A. The student will demonstrate proficiency in taking a thorough history from children and adolescents and skillful use of collateral sources when the infant/child is unable to give a history.
- B. The student will demonstrate proficiency in the performance of a physical examination on a neonate, young child and adolescent.
- C. The student will demonstrate knowledge of the differences between the physical examination of an adult and child. The student will demonstrate proficiency in the recognition of dysmorphic physical features.

UNIT II NEONATOLOGY AND INFANCY

- A. The student will demonstrate a thorough understanding of the normal growth and developmental milestones for neonates and infants to include:
 - 1. Assessment of gestational age
 - 2. APGAR scores
 - 3. Utilization of growth charts
 - 4. Knowledge of nutrition to include feeding methods and failure to thrive
- B. The student will be familiar with neonatal problems and emergencies to include:
 - 1. Complications of delivery; prematurity, presence of meconium, cesarean delivery, and principles of neonatal resuscitation.
 - 2. Management of metabolic abnormalities, respiratory distress, infection, jaundice, hemolytic defects, cardiac failure, fluid and electrolyte imbalances, and drug dependent infants.
- C. Recognition of frequent congenital abnormalities.

UNIT III PEDIATRIC CARDIOVASCULAR DISEASE

- A. The student will demonstrate thorough knowledge of the changes from fetal to neonatal cardiac structure and physiology.
- B. The student will recognize the principles in the diagnosis and treatment of common cardiac structural defects to include PDA, ASD, VSD, Tetralogy of Fallot, coarctation of the aorta.
- C. The student will be able to recognize normal and abnormal ECG patterns in children and infants.

UNIT IV PEDIATRIC RESPIRATORY DISEASE AND OTOLARYNGOLOGY

A. The student will be familiar with the evaluation of pulmonary status in the infant and young child and the interpretation of diagnostic procedures such as arterial blood gasses, pulmonary function tests and imaging procedures.

B. The student will be able to discuss the evaluation, diagnosis and treatment of pediatric patients with the following disorders:

1. Upper airway obstruction to include choking, foreign body aspiration, epiglottitis, croup
2. Lower airway disease to include bronchiolitis, pneumonia and cystic fibrosis.
3. Asthma
4. Tonsillitis

C. The student will be familiar with the removal of foreign bodies from the nasal passages and external auditory canal.

D. The student will be proficient in the diagnosis of otitis externa and acute/chronic otitis media.

UNIT V PEDIATRIC RENAL/URINARY DISEASE

A. The student will be able to discuss the evaluation, diagnosis and treatment of the following common renal diseases in the pediatric population:

1. Acute renal failure
2. Chronic renal failure
3. Glomerular diseases to include nephritic syndrome, nephrotic syndrome
4. Urinary tract infections
5. Nocturnal Enuresis
6. Lower urinary tract obstruction

UNIT VI GASTROINTESTINAL AND HEPATIC DISEASES

A. The student will be able to discuss the evaluation, diagnosis and treatment of common pediatric GI problems to include:

1. Diarrhea: Viral, Bacterial, Parasitic
2. Chronic malabsorption syndrome
3. Abdominal pain
4. Constipation
5. Jaundice

UNIT VII PEDIATRIC HEMATOLOGIC DISEASES

A. The student will demonstrate familiarity with the evaluation of hematological diseases to include a hemogram, bone marrow studies, iron indices, etc.

B. The student will be able to discuss the evaluation, diagnosis and treatment of the following hematologic disease states in children:

1. Anemia
2. Thalassemia syndromes
3. Sickle Cell disease
4. Coagulation Disorders
5. Leukemias/Lymphomas

UNIT VIII METABOLIC, GENETIC AND ENDOCRINE DISEASES

A. The student will review the biochemical origins and pathophysiology of common childhood metabolic diseases to include:

1. PKU
2. Common Hepatic Storage Diseases
3. Other: Wilson's Disease, Hurler's Syndrome, Fanconi's Syndrome

B. The student will review the genetic abnormalities and pathophysiology of common childhood genetic disorder to include:

1. Trisomy disorders-Down's Syndrome, Klinefelter's Syndrome, Turner's Syndrome
2. Fragile X Syndrome

C. The student will review the pathophysiology of the hypothalamic-pituitary axis including the following endocrine disorders:

1. Acromegaly
2. Adrenal insufficiency
3. Juvenile Diabetes Mellitus
4. Causes of ambiguous genitalia
5. Thyroid Disease

UNIT IX INFECTIOUS DISEASES

- A. The student will demonstrate thorough familiarity with the principles of immunization prophylaxis in children to include MMR, DPT, Polio.
- B. The student will be familiar with the causes and treatment of the following:
 - 1. Sepsis
 - 2. Meningitis: Neonatal/Childhood
 - 3. Encephalitis
 - 4. Pneumonia
 - 5. Gastrointestinal (Viral/Bacterial/Parasitic diarrhea)
 - 6. Infectious mononucleosis

UNIT X DIAGNOSIS AND TREATMENT OF NEUROLOGICAL DISEASE

- A. The student will demonstrate familiarity with the indications and interpretation of diagnostic tools to include lumbar puncture, CT scan, MRI and EEG.
- B. The student will demonstrate thorough knowledge of the diagnosis and treatment of common pediatric neurological disorders to include:
 - 1. Seizure disorder and Status Epilepticus
 - 2. Headaches in the pediatric population
 - 3. Common tumors
 - 4. Cerebral Palsy
 - 5. Head Injury

UNIT XI OTHER PEDIATRIC LEARNING OBJECTIVES

- A. The student will demonstrate proficiency in the diagnosis and treatment of common Rheumatologic Diseases to include:
 - 1. Juvenile Rheumatoid Arthritis
 - 2. Systemic Lupus Erythematosus
- B. The student will demonstrate proficiency in the diagnosis and treatment of common child and adolescent orthopedic problems to include:
 - 1. Congenital malformations
 - 2. Scoliosis
 - 3. Injuries
- C. The student will be able to diagnose and treat common childhood poisoning to include the general management of salicylate and acetaminophen poisoning and inhalant intoxication.

D. The student will be aware of the diagnosis and treatment of common childhood dermatologic conditions to include atopic dermatitis, bacterial infections of the skin, ringworm and the treatment of dermatitis, insect bites and lice.

E. The student will review common childhood and adolescent behavioral disorders to include:

1. Enuresis and Encopresis
2. Eating Disorders-anorexia nervosa and bulimia
3. Child Abuse indicators-physical and behavioral
4. Mental Retardation

F. The student will be aware of adolescent gynecological and sexual problems to include:

1. Sexual History and Birth Control Counseling
2. Counseling about STDs with special emphasis on HIV prevention
3. Assessment and treatment of youthful sexual assault victims

G. The student will gain basic proficiency in the performance of the following procedures:

1. Neonatal resuscitation
2. Venipuncture/Starting IV's on infants and young children
3. Stool smear preparation
4. Throat Culture
5. Blood Culture
6. Principles of foreign body removal-ears and nasal passages
7. Immunizations

CLERKSHIP OBJECTIVES

OBSTETRIC & GYNECOLOGY ROTATION

UNIT I HISTORY AND PHYSICAL EXAMINATION

- A. The student will perform a history and physical examination on each patient with special attention to the reproductive history. The pelvic and breast portions of the examination will be performed under supervision.
- B. The student will demonstrate knowledge of appropriate diagnostic tests to order for specific conditions including laboratory tests, sonograms, and mammograms.

UNIT II NORMAL PREGNANCY AND DELIVERY

- A. The student will demonstrate a thorough understanding of the physiologic changes in pregnancy to include:
 - 1. Normal maternal physiologic changes in the first, second and third trimester
 - 2. Placental development and physiology
 - 3. Fetal development and physiology
- B. The student will be familiar with the routine monitoring and care of a normal pregnancy.
- C. The student will know all stages of normal labor and delivery.
- D. The student will demonstrate familiarity with fetal monitoring techniques as well as obstetric analgesia and anesthesia.
- E. The student will demonstrate understanding of routine postpartum care and breastfeeding.

UNIT III ABNORMAL PREGNANCY AND DELIVERY

- A. The student will be familiar with identification of the high risk pregnancy.
- B. The student will demonstrate proficiency in the diagnosis and treatment of medical complications of pregnancy to include hypertension, diabetes, heart disease, thyroid disease and anemias.

C. The student will demonstrate understanding of the diagnosis and treatment of the following conditions:

1. Ectopic pregnancy
2. Preeclampsia
3. Rh disease
4. Maternal substance abuse
5. Gestational trophoblastic disease
6. Antepartum bleeding
7. Premature labor
8. Abnormal fetal heart rate
9. Fetal distress

D. The student will be familiar with indications for cesarean section and other operative obstetric interventions.

UNIT IV GYNECOLOGY

A. The student will know all phases of the normal menstrual cycle and the diagnosis and treatment of abnormal menstrual conditions including endometriosis.

B. The student will practice family planning counseling with several patients and their spouses or partners.

C. The student will be familiar with the diagnosis and treatment of complications of menopause.

D. The student will be familiar with the diagnosis and treatment of infertility.

E. The student will demonstrate proficiency in the diagnosis and treatment of sexually transmitted diseases.

F. The student will be able to discuss the diagnosis and treatment of common gynecologic tumors including:

1. Carcinoma of the vagina, cervix and endometrium
2. Carcinoma of the breast
3. Myomata uteri

UNIT V PROCEDURES

- A. When possible, the student will gain basic proficiency in the performance of the following procedures:
1. I.V. setup
 2. Venipuncture
 3. Examination of patient in various stages of labor with supervision
 4. Assistance at delivery and performance at procedures approved by the preceptor
- B. Scrub and provide assistance to the Attending for surgical procedures as appropriate.

CLERKSHIP OBJECTIVES PSYCHIATRY ROTATION

UNIT I MENTAL STATUS EXAMINATION

- A. The student will gain proficiency in the performance of a mental status examination on patients with a wide variety of common disorders.
- B. The student will be familiar with the use of psychological testing as well as laboratory tests used to discriminate organic and functional disorders.

UNIT II COMMON DSM IV DISORDERS

- A. The student will be familiar with the diagnostic criteria for the following common Axis I psychiatric disorders:
 - 1. Schizophrenia (major subtypes)
 - 2. Bipolar Affective Disorder (major subtypes)
Unipolar Depression
 - 3. Organic Disorders: Dementia, Delirium, Mood (secondary to substance abuse; chronic medical disorders etc.)
 - 4. Anxiety Disorders
- B. The student will gain basic knowledge of common Axis II disorders:
 - 1. Cluster A; (Avoidant, Schizoid, Schizotypal)
 - 2. Cluster B: (Borderline, Antisocial dynamics)
- C. The student will be familiar with the management of psychiatric emergencies to include suicide, violence, detoxification.

UNIT III PSYCHOPHARMACOLOGY

- A. The student will be proficient in the therapeutic indications and side effects of major groups of psychotropic medications to include:
 - 1. Antipsychotic Medications
 - 2. Antidepressant Medications
 - 3. Mood Stabilizing Medications
 - 4. Judicious use of anxiolytics in acute/chronic patients

UNIT IV THERAPEUTIC INTERVENTIONS

- A. The student will have broad exposure to therapeutic interventions:
 - 1. Attendance at Treatment Team
 - 2. Group/Individual Therapy observation when appropriate
 - C. Exposure to outpatient management (if available, 2-4 hrs. a week)

Clinical Medicine Program Student Requirements

Students are required to do the following on each patient:

- A. Obtain a thorough medical history, to include the following:
 - 1. Place emphasis on the major conditions, including the pertinent "negatives".
 - 2. Analyze contributory conditions.
 - 3. Describe incidental conditions (standard summary of past medical conditions and review of systems.)

- B. Do a thorough physical examination, to include the following:
 - 1. Place emphasis on the major condition, including pertinent "negatives."
 - 2. Describe contributory and incidental findings.

- C. Assess and describe social and environmental factors which may be responsible for or which may contribute to the core condition, including the following:
 - 1. Social factors
 - 2. Occupational factors and implications
 - 3. Economic factors
 - 4. Family dynamics
 - 5. Personal habits, including sexual preference
 - 6. Psychodynamics

- D. Laboratory assessments, to include:
 - 1. Perform or observe as appropriate complete blood count, urinalysis, stool examination, spinal fluid analysis and other relevant laboratory procedures.
 - 2. Under supervision, observe and perform laboratory procedures, to include bacteriologic, electro and echocardiograms, hematologic, pulmonary function, and other studies as deemed appropriate.
 - 3. Under supervision, interpret laboratory results, to include: radiographic, ultrasonic and other specialized diagnostic methods.

- E. Differential diagnosis, including:

Make a comprehensive listing of reasonable diagnostic possibilities for the presenting and contributory conditions; formulate an analysis of the relative likelihood of differential diagnostic probabilities.

- F. Case write-ups, including:
 - 1. Prepare a clear, comprehensive, and legible report in standardized clinical format, to include history, physical examination findings, initial laboratory information, listing of clinical conditions in descending order of severity, differential diagnosis, and formulation of diagnostic and therapeutic approaches.

2. Have the report reviewed, critiqued, and countersigned by the clinical instructor, preceptor or resident physician responsible for supervision.

G. Personal log management, to include:

1. Maintain a personal logbook in which the student enter complete case write-ups, summaries of special tests, and follow-up information. Document the procedures you are involved in actively or as an observer.

H. Case presentations:

Prepare a brief, accurate, and logical case description for oral presentations.

I. Pathologic analysis:

Examine all tissues obtained from biopsy, aspiration, excision, or autopsy, to include gross and microscopic analysis (when applicable).

J. Interdisciplinary Team Management:

Review methods and practices of working with nurses, social workers, and other medical-health care personnel providing care to the patient, to include recording and processing physician's orders, dispensing of drugs, and nonpharmacologic interventions.

K. Follow-up:

1. Review patient's condition at appropriate intervals
2. Maintain periodic progress notes in log
3. Continue follow-up of patient throughout the hospital stay and, when appropriate, in the out-patient clinic, home, or special community facility.
4. Observe and participate in rehabilitation interventions.

L. Review of literature:

1. Prepare an updated summary of pertinent aspects of the core condition, citing sources of information.
2. Prepare a summary of special aspects of the core condition in relation to contributory or associated conditions.

M. Special considerations: to include

1. Ethical dilemmas
2. Legal implications

CLINICAL MEDICINE POLICY STATEMENT

The Clinical Medicine program at the Medical University of the Americas consists of the third and fourth years of medical training (sixth through tenth semesters). The clinical clerkships are provided at numerous hospitals and specialized clinical facilities in the United States, Canada, Europe, and the Caribbean where the Medical University of the Americas has established formal affiliations.

CURRICULUM

The Clinical Medicine program consists of two academic years, totaling 72 weeks. It is divided into the following areas:

Core Clinical Rotations

Internal Medicine	12 weeks
General Surgery	12 weeks
Pediatrics	6 weeks
Psychiatry	6 weeks
Obstetrics/Gynecology	6 weeks

Electives selected by the student	30 weeks
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TOTAL	<u>72 weeks</u>
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MATRICULATION

In order to enter the Clinical Medicine program, a student:

1. Must have successfully completed all the Basic Science course requirements
2. Must receive the recommendation from the Dean of Basic Sciences of The Medical University of the Americas
3. Have met all the financial obligations for the 6th semester and all previous semesters
4. Have all required administrative documentation on file
5. Must receive a **letter of clearance** from the Medical University of the Americas prior to matriculation in the Clinical Program
6. Must have taken and passed the USMLE Step I exam

Whenever possible, students will be placed in medical centers which provide services in all major clinical departments and subspecialties. To achieve a broad-based experience in medical practice, students may also be assigned to clerkships in community hospitals with established educational programs.

As much as possible, students will be placed in clinical rotations and hospitals taking into consideration their geographic, career and academic preferences, plus lodging, family considerations and other personal needs.

There is no rigidly established schedule or sequence of clinical medicine rotations. Students will be notified in writing of their entry into a given hospital rotation by the Clinical Medicine department. No elective rotation may be scheduled for less than four weeks unless approved by the Dean of Clinical Medicine.

Any student that desires to establish a clerkship on his/her own must do so with approval and in collaboration with the Dean of Clinical Medicine at the Medical University of the Americas. In all cases, complete documentation and a letter of agreement between the Medical University of the Americas and the affiliate hospital must be **completed** before the student may begin a clinical rotation. Documentation will normally include: (a) a full description of the intended clerkship dates and duties, (b) a list of clinical instructors, supervisors and/or preceptors, to include a curriculum vitae of the principal supervisor, (c) and a letter of agreement from the program supervisor, indicating what fees, if any, will be incurred.

Schedule of Clinical Assignments:

The Director of Medical Education at the host hospital will provide each student with a schedule of clerkships projected for reasonable periods. Changes in this schedule can only be made with joint approval of the Director of Medical Education at the affiliated hospital and the Dean of Clinical Medicine at the Medical University of the Americas.

INFORMATION FOR NEW STUDENTS IN CLINICAL MEDICINE

The most important thing to know about your clinical medicine program is that: what you get out of your clinical program will be directly proportional to what you put into it!

The Clinical Medicine program at the Medical University of the Americas is designed to provide you with a comprehensive overview of medical practice, including an understanding of the interrelationships among the different levels of practice and areas of specialization. You will find numerous opportunities to integrate your basic science knowledge into clinical practice and develop the skills necessary to enter a residency program and practice the profession of medicine.

As you prepare to enter the Clinical Medicine program, there are some extremely important points to keep in mind. First, you may find the transition from learning in the classroom to the clinical setting somewhat bewildering. To some extent, you have become familiar with a clinical environment during your physical diagnosis course; however, you will find that in comparison with your clerkship assignments the physical diagnosis experience was highly structured. To a great extent the scope and extent of your learning during your Clinical Medicine program will depend upon how fully and effectively you apply yourself. So, **ask questions; read up on** pathological conditions you encounter; be available to **help out**; pitch in or **volunteer** when your help would be beneficial to the service to which you are assigned.

What makes a good clinical student?

1. As a clinical student you will be a member of an interdisciplinary health care team in the hospital to which you are assigned. The effectiveness of a team depends on each person doing his/her part. **It is important that you function as a responsible team member.**
2. Your appearance will affect your relationships with staff members and patients. **Dress appropriately and maintain good hygiene.**
3. **Be punctual, reliable, and courteous to all those you encounter.**

Effective Learning in the Clinical Medicine Program:

General Information:

Patients are the main source of learning in the clinical program. It is from the patients you see that you will develop your clinical knowledge and skills. So, be assertive in searching out new learning experiences. You may be able to "get by" and receive a passing grade by doing no more than is directly assigned to you, but you will be cheating yourself by not taking advantage of opportunities to further develop your clinical skills. Seize every opportunity to observe the signs and symptoms of any condition. Do not limit yourself to assigned patients.

Assigned Patients:

For assigned patients you will be expected to do a thorough physical examination, take and record a medical, personal, and family history, make a diagnosis based on all the available information including laboratory findings, and to follow the patient through to discharge from the hospital.

Keep in mind that a thorough knowledge of your patients is important. Learn about their family, social, occupational and economic situations. Be aware of their emotional state since a patient's emotional state will affect the rate and degree of recovery.

Selective Study:

While you are in your clinical training, you will not have the same amount of time for reading that you had during the basic science program. To gain the most from your clinical medicine rotations, you will have to direct your energy selectively to the specific problems of patients you see, with particular emphasis on assigned patients. Through this approach you will learn to integrate basic science knowledge with experiential learning that comes from participating in the care of patients. Additional textbook and journal readings will prepare you for discussing assigned patients with residents and other supervisors.

Following your review of pertinent literature, it is good practice to re-assess the accuracy and completeness of the patient's history, examinations, and laboratory findings to determine whether information recorded needs to be supplemented or modified.

Case Reports:

A major purpose of requiring you to prepare a complete "case report" on assigned patients is to help you develop a thorough methodical approach to patient evaluation. In the long run, this approach will benefit you as a physician and will become easier with time.

Helpful hints in case recording:

- 1. Use only abbreviations that are generally accepted.** Keep in mind that some commonly used abbreviations have multiple meanings (MG = Magnesium, Myasthenia gravis etc.). Unless the context in which the abbreviation is used insures that it will be correctly interpreted, **spell it out.**
- 2. Write all entries legibly.** If your written entries cannot be read by others, they are at best useless, and could even be dangerous.
- 3. Your case presentations** will be based upon your case reports, which include a history, physical examination, laboratory findings, and differential diagnosis. These case presentations are to be as succinct as possible unless you are directed to do otherwise.
- 4. During your clinical medicine rotations** you will relate to a variety of individuals with diverse roles, expectations, and degrees of authority. Because your own position as a medical student is sometime not well defined within any hospital hierarchy, often times you may have the opportunity to define your own position. Please read the article **Interpersonal Conflicts Involving Students in Clinical Medicine** (Journal of Medical Education, Vol 60, No.11, November 1985) for more insight into situations which may arise during your rotations.
- 5. Confidentiality and tact are very important.** When introducing yourself to patients, you will find that most patients will accept your introduction as a medical student who is assisting the doctor by gathering some preliminary information. **You should never talk about patients in public areas.** Considerable harm can occur as a result of well-meaning, casual comments made in such areas as elevators, cafeterias, and hallways.
- 6. Standards of Conduct:** Students are expected to abide by the hospital rules in all cases. **Courteous treatment of all staff is expected as well as mature conduct.** Scheduled hours in the hospital as well as on-call times are determined by your preceptor and the director of medical education. Any absences must be cleared by your preceptor. No vacation time is to be scheduled during any rotation. **100% attendance is expected. Tardiness or failure to report to your clerkship during assigned hours will be reported to the Dean of Clinical Medicine and will entail potentially dire consequences.**

***Clinical Clerkship
Grading Guidelines***

for

Clinical Preceptors

MEDICAL University of the Americas

**P.O. Box 701 Charlestown, Nevis, West Indies
Tel: (869) 469-9177 Fax: (869) 469-9180**

Clinical Clerkship Grading Guidelines

- 1. Please use the following numerical grading guide lines for each category below.**
- 2. After completion, please return to Dean of Clinical Medicine, C/O Educational Information Consultants Inc, P.O. Box 505, Gardner, MA 01440**

Grading Guidelines:

- 60 - Significantly fails to meet the criteria as specified for a grade of "70"**
- 65 - Minimally fails to meet the criteria as outlined by a grade of "70"**
- 70 - Below average performance as specified in the stated criteria**
- 75 - Slightly below average performance as indicated by the fact that the student meets some of the criteria for both a grade of "70" and "80"**
- 80 - An average performance by a third year medical student on our rotation**
- 85 - Reflects above average performance with the student meeting some of the criteria for both a grade of "80" and "90"**
- 90 - A clear above average performance**
- 100 - Performance is significantly greater than criteria as outlined for a grade of "90"**

NOTE: Please provide written documentation in the comments section for any grades below 80 and above 90.

Clinical Rotation Categories:

A. PATHOPHYSIOLOGY

- 70 - The student demonstrates limited understanding of pathophysiology and disease mechanisms. The student has difficulty discussing particular patients and integrating basic science concepts with clinical data.**
- 80 - The student has at least some understanding of the pathophysiological disease process and is able to discuss major factors that are existent in a particular patient.**
- 90 - The student demonstrates a clear understanding of disease process in several types of patients and is readily able to integrate the basic science concepts with clinical data.**

B. DIAGNOSIS

- 70 - The student uses vague terminology applying to the disease process, but has difficulty defining these terms or equates symptoms with diagnosis.**
- 80 - The student is able to distinguish diagnostic categories for the most common disease processes and provides at least half the diagnostic criteria for a given diagnosis. The student can also formulate additional differential diagnoses.**
- 90 - The student is able to distinguish diagnostic categories and provide the needed diagnostic criteria to support all proposed diagnoses. The student can discuss the differential diagnoses of the common disorders in depth with little or no preparation.**

C. THERAPEUTICS

- 70 - The student knows only global concepts of pharmacological treatment. The student cannot explain the rationale for choosing a particular treatment modality.**
- 80 - The student can discuss specific treatment modalities and knows major classes of pharmacological medication. The student can discuss subtypes of at least one modality -- being able to outline the typical method of use, indications, dosage range, and what is considered an adequate trial.**
- 90 - The student can discuss subtypes of all major therapeutic treatment modalities in great detail. The student can also discuss which types of treatment are most useful in a given patient.**

D. INTERVIEWING

- 70 - By the end of the rotation, the student continues to be somewhat awkward, fails to put patients at ease, asks questions in a mechanical or "interrogating" manner, and fails to follow-up on expected leads.**
- 80 - By the end of the rotation, the student has learned to put patients at ease, asks open-ended questions at times, and is able to obtain most necessary information within a reasonable time period.**
- 90 - By the end of the rotation, the student has learned to put most patients at ease and maintain a smooth and flowing conversational interchange. The student can flexibly change style or line of questioning in response to the patient's needs or can adapt their style easily for different types of patients. The student listens well.**

E. DATA GATHERING:

- 70 - The student shows limited knowledge of his or her patients and relies on the resident or attending physician's workup. The student seldom seeks additional information or there are information gaps in the review of systems and history & physical examination. Oral presentations may be disorganized.**
- 80 - The student relies on the resident workup, but also uses his or her own interview. The student also reads old charts and contacts outside sources with encouragement. The student can present findings on request, but may need assistance to select what is necessary or pertinent data. Oral presentations are adequate.**
- 90 - The student obtains information from multiple sources with minimal encouragement. The student presents findings precisely such that other team members can use the information easily in treatment and discharge planning. Oral presentations are thorough and well organized.**

F. CHARTWORK

- 70 - The student is occasionally careless about charting and may use stereotyped phrases or jargon. The student may also write nonobjective notes and express his or her own attitudes about a patient's condition rather than using objective criteria. The student needs to be prompted to write progress notes.**
- 80 - The student writes all progress notes in a timely fashion and keeps comments concise and objective. The student writes notes daily without prompting.**
- 90 - The student writes very accurate and descriptive notes which give a clear picture of the treatment goals and the patient's progress.**

G. TREATMENT AND IMPLEMENTATION

- 70 - The student takes a passive role in treatment. The student carries out the directions of the resident or attending, but assumes no overall direction of the patient's case. The student may get over-involved, and have difficulty setting boundaries (seeing him or herself as the patient's friend, confidant, or advocate against the physician or staff).**
- 80 - The student takes a moderately active role in treatment. The student seeks out the patient for regular encounters without encouragement. The student asks for direction and occasionally has suggestions for the treatment team to consider.**
- 90 - The student takes an active role in developing and carrying out the treatment plan. The student monitors progress daily and reports to the team. The student is available in crises and consults with the team.**

H. RAPPORT

- 70 - The student maintains only marginal relationship with patients and staff. The student has little empathy for the patient or sees them only as diagnoses.**
- 80 - The student maintains a pleasant relationship with both patients and staff. The student is accepted as an important member of the treatment team.**
- 90 - The student is clearly perceived as a valuable member of the treatment team by both patients and staff. The student is asked about by the patients when absent and clearly empathizes with patients.**

I. RESPONSIBILITY

- 70 - The student is frequently absent or late to scheduled activities or is sometimes hard to find. The student may not carry out his/her clinical duties in an expected manner.**
- 80 - The student is regular in attendance, works cheerfully as directed and carries out assigned duties in a timely manner. The student will take on extra responsibility, if asked.**
- 90 - The student is totally dependable and does more than is asked. The student takes the initiative to make sure that things get done. The student may stay overtime when necessary.**

J. INTEREST

- 70 - The student shows limited enthusiasm for the rotation, does only what is required, and shows little interest in learning more.**
- 80 - The student shows active interest, reads about his/her patients, and asks pertinent questions .**
- 90 - The student shows more than average interest; he or she may read outside articles or books and look up topics in medical literature. The student does extra work without encouragement.**

Clinical Clerkship

EVALUATION FORM

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