First Year
(a) = fall term; (b) = spring term

Basic Human Genetics (b)
This course presents the principles of basic human genetics. It is largely a self-study course, with material presented on the web and in scheduled review sessions with genetics instructors. Material covered includes basic cytogenetics, molecular genetics, patterns of inheritance and population genetics.

Doctoring (a,b)
The Doctoring course integrates basic biomedical and psycho-social sciences with clinical medicine into a system for comprehensive, humanistic care. The knowledge, skills and attitudes necessary for developing a therapeutic physician-patient relationship as the fundamental unit of health care are taught. The principles of clinical diagnosis based on the medical history, physical examination, basic pathophysiology and clinical reasoning are also taught systematically through lectures, small group instruction and self-directed learning activities. Students practice interviewing and examination techniques with standardized and real patients, and acquire facility in medical communication and in formulating diagnostic hypotheses through oral and written patient presentations. The classroom, examination room, small group sessions, on-line information activities, home and community are the settings for learning basic concepts of primary care. Preceptorship experiences with faculty and community preceptors are important parts of this course.

Ethical and Social Issues in Medicine I (a)
This course reviews basic ethical issues in medical practice and develops critical thinking skills for addressing problems of clinical ethics. In introductory lectures and small group discussion sessions, students and faculty examine a variety of issues including informed consent, surrogate decision making, truthfulness, confidentiality, professional boundaries, access to health care, abortion, advance care planning and limitation of life-sustaining treatment.

Medical Biochemistry (a)
This course correlates biological function and molecular structure. Lecture topics and clinical examples illustrate progress from the molecular level through more complex levels of organization and function. Major subject areas include chemistry and function of enzymes and other proteins, metabolism of carbohydrates, lipids and amino acids, gene biochemistry and expression, tissue and organ metabolism and regulation, and metabolism in abnormal cells.

Gross Anatomy and Embryology (a)
This course focuses on the structure and development of the human body. Students learn anatomy primarily from dissection of human cadavers and prosection demonstrations. Embryology and radiology lectures are integrated topically with the area of the body being dissected. Clinical relevance and application are emphasized during laboratory by faculty and in guest lectures by practicing physicians.

Medical Histology (a)
Microscopic Anatomy presents three basic areas of histology: (1) modern concepts of cell biology; (2) organization of cells and extracellular matrix into tissues; and (3) structure-function relationships in organ systems. Laboratory sessions utilize a CD-ROM that provides an excellent collection of histological images of tissue
sections and electron micrographs.

Medical Neuroscience (b)
This is an integrated course, combining principles of neuroanatomy, neuropathology and the clinical neurosciences that are appropriate for medical students entering primary care disciplines. It encompasses the anatomy and physiology of neurons in the human nervous system at organ, cellular and molecular levels. Lectures cover the synaptic and topographic relations of neurons, the distribution and function of neurotransmitters, the functional organization of the central nervous system, its development and maturation, and its response to aging and damage. The in situ relationships of the central nervous system and its coverings are correlated with several diagnostic procedures including magnetic resonance imaging. Laboratory sessions include the study of prosected human brain specimens as well as the study of images of transverse sections of brain, brainstem and spinal cord.

Behavioral Sciences (b)
This course focuses on the basic science of Psychiatric Medicine. Reading covers psychological and sociological aspects of human development with specific attention to the physician-patient interaction. Lectures followed by small group seminars led by psychiatry faculty are the prime teaching modality. This course also covers medical research designs, statistical methodology, and critical appraisal of the medical literature.

Medical Microbiology and Immunology I (b)
This course teaches the basic and clinical principles of immunology and virology as these disciplines relate to human disease. Major topics include immunology, virology and molecular genetics. Innate and acquired mechanisms of immunity, preventative and prophylactic measures, host-parasite relationships, pathophysiology and epidemiology are discussed in relation to the spectrum of immunologic and infectious disease. Lecture, clinical conferences and laboratory are used to emphasize the interdisciplinary nature of microbiology and immunology.

Medical Physiology (b)
This course presents the basic principles of cell physiology followed by an in-depth examination of the organ systems – muscular, cardiovascular, respiratory, gastrointestinal, renal and endocrine systems. Special attention is given to the integrative nature of organ system behavior and to interactive control mechanisms. Presentation is by lectures, conferences and demonstrations.

Primary Care Preceptorship (b)
Students spend three days as a learner in a primary care physician’s office in various locations in the state; the experience reinforces the knowledge and concepts gained in the Doctoring and basic science courses. This program is administered by the Department of Family Medicine.

Second Year
(a) = fall term; (b) = spring term

Clinical Skills (a, b)
The Clinical Skills course builds on the physical examination, interviewing, and critical appraisal skills introduced in the first-year Doctoring course. Students will enhance their doctor-patient relationship and interviewing skills. They will develop clinical communication skills to assist patients in adopting a healthy lifestyle. Interviewing techniques for specific populations such as the adolescent, the geriatric patient, and the difficult patient will be discussed. Students will develop their skills in the critical appraisal of the literature. Physical examination skills will be refined and new techniques learned.

Cultural & Social Dimensions of Medical Practice (a)
This course builds on the first year medical ethics course by examining various aspects of the milieu in which medical practice is conducted. It explores a
variety of topics from historical, sociological, literary, anthropological, economic and policy perspectives. Subjects include illness and suffering; families and illness; gender issues in medicine; race and ethnicity; medicine and religion; culture and medicine; difference and disability; labeling and stigmatization; the role of technology in medicine; complementary and alternative medicine; and health care reform in the United States. Students write an illness narrative reflecting on the ways that cultural and social factors influenced them and their families during a time of sickness. Each session of the course begins with a lecture, followed by a small group discussion with a humanist and a clinician.

**Introduction to Medicine (a, b)**
This is a comprehensive course correlating basic science with clinical medicine and emphasizing the interpretation of data in disease processes. It is here that students master pathophysiology of disease, learn clinical reasoning skills, develop problem lists and differential diagnoses, are introduced to diagnostic testing and begin to appreciate the multiple opportunities for preventive interventions. Integrated with the Clinical Skills course and conducted by faculty of several clinical departments, much of this course is taught in case-based seminar sessions with faculty facilitators. Lectures and self-directed learning complement and extend the curriculum.

**Medical Genetics (b)**
This course expands on topics covered in the first year basic genetics course by including clinical material to illustrate basic genetic principles and application of basic science techniques to the evaluation, management, and treatment of genetic disease. The impact of genetics on families and society is explored in lectures on genetic counseling, public health genetics and ethics.

**Medical Microbiology and Immunology II (a)**
This course continues presenting the principles of microbiology and immunology begun during the preceding year. Second year content includes medical bacteriology, mycology and parasitology. As with previous topics, the basic concepts of each subdiscipline are reviewed and developed into the concepts required for medical practice. Host-parasite relationships, epidemiology, pathophysiology of infection and disease, and therapeutic and preventive measures are discussed in relation to the physiology and ultrastructure of the infectious agent. Clinical lectures and small group case conferences with faculty specializing in infectious diseases and other disciplines complement the basic science
fundamentals. Laboratory instruction and exercises emphasize the development of precautions and skills in handling infectious agents, proper communication with the clinical laboratory, and an understanding of the role of the clinical laboratory in the diagnosis and treatment of infectious diseases.

Medical Pathology (a, b)
The first section of this course emphasizes basic principles regarding structural and functional alterations of organs, tissues and cells in the genesis and effect of disease. Topics include inflammation and repair, neoplasia, immune diseases, infectious diseases, genetic diseases and environmental pathology. The second section stresses the basic pathologies of the various body systems with emphasis on their interrelationships. Topics include the heart, respiratory system, gastrointestinal tract, liver, pancreas, endocrine system, nervous system, genito-urinary tract, skin and musculo-skeletal system. Instruction includes lecture, demonstrations, gross and microscopic laboratory work and case-oriented discussions.

Medical Pharmacology (a, b)
The course in Medical Pharmacology provides students with the fundamentals needed to practice rational drug therapy in humans, including drug actions, interactions, clinical uses and toxicity of drugs by drug classes. The logic of using drugs optimally in particular clinical situations is emphasized using lectures, clinically-based small group discussion sessions, computer-based laboratory simulations, and self-instructional materials.

Psychopathology (a, b)
This course has three major sections: basic psychopathology, human sexuality, and lifestyle abuse. The first part of the course covers basic psychopathology and the diagnostic entities necessary for the practice of any medical specialty. Material for discussion in small groups comes from assigned readings and lectures. It emphasizes an eclectic approach to mental and emotional disorders as medical problems and presents treatment modalities as applicable to the non-psychiatric physician. The human sexuality section covers aspects of the patient and the student as sexual entities and deals with interactions that may occur as a result. The lifestyle abuse section addresses lifestyle abuse in the medical profession in a thorough, multidisciplinary, patient-oriented way. The student will enter the clinical years with a well-rounded knowledge of the pharmacological, pathological and behavioral aspects of lifestyle abuse and with the ability to diagnose and treat the conditions and their complications. This course prepares the student for the third-year clerkship in psychiatric medicine.

Primary Care Preceptorship (b)
Students spend five days as a learner in a primary care physician's office in various locations in the state; the experience allows further development of skills learned in the classroom. This program is administered by the Department of Family Medicine.
Third Year
(Clinical Rotations)

Family Medicine  8 weeks
Medicine         8 weeks
Obstetrics/Gynecology  8 weeks
Pediatrics        8 weeks
Psychiatric Medicine  8 weeks
Surgery           8 weeks

**Family Medicine Clerkship**
The third-year clerkship allows students to participate in the academic, hospital and ambulatory practice of family medicine. During the eight-week rotation, students work in the offices of board-certified family medicine specialists at the Eastern Carolina Family Medicine Center and at other locations throughout North Carolina. Didactic sessions are provided to augment the students’ patient-care experiences.

**Internal Medicine Clerkship**
This rotation enables students to apply basic science and clinical knowledge to patient care situations. Clinical problem solving, prioritization of problems, correlation with pathophysiology, diagnostic evaluation and therapy is emphasized. Students are encouraged to learn by daily reading pertinent to the patient problems they are encountering on the wards. Students work with members of the total patient care team by participating in morning work rounds, assuming increased responsibility for patient evaluation and care, and assisting with common procedures. During the eight-week clerkship, each student is exposed to a balance of experiences in the major areas of medicine. Four weeks are spent on a general medicine inpatient service and four weeks on one of four subspecialty services, i.e. cardiology, nephrology, neurology or hematology/oncology.

**Obstetrics and Gynecology Clerkship**
The eight-week clerkship introduces the student to the physiology and pathology of obstetrical and gynecological conditions, and relates these to the diagnosis and management of disease in women. Students acquire knowledge and skills in health care maintenance including preventive medicine and family planning. They also achieve competence in history taking, diagnosis and clinical management. Students develop skills in utilizing health care resources in the management of patients with disease, in preventive health care, and health maintenance. Self-study, supported by frequent small group seminars, complement the clinical experiences conducted on obstetrical and gynecological units at Pitt County Memorial Hospital, the School of Medicine Outpatient Center, and county health departments within the region.

**Pediatrics Clerkship**
Upon completion of the eight-week clerkship, students possess the skills and knowledge necessary to perform pediatric medical evaluations. Students are able to record and communicate pertinent data, and formulate and implement management plans for common health concerns for children from birth through adolescence. Preventive health principles for optimal child health are also emphasized. Students experience clinical teaching on the pediatric inpatient service and the newborn nursery of University Health Systems of Eastern Carolina. Subspecialty and general pediatric care are taught at
the Brody School of Medicine Pediatric Outpatient Centers. Students also experience rural health in approved pediatric practices in eastern North Carolina.

**Psychiatric Medicine Clerkship**

This eight-week clerkship consists of inpatient, outpatient and didactic experiences. The inpatient rotation is a four-week experience at Cherry Hospital (the regional state psychiatric hospital in Goldsboro) or at the psychiatric unit of Pitt County Memorial Hospital. The outpatient experience usually involves four weeks at a community mental health center or at the Brody School of Medicine Psychiatry Outpatient Clinic. Some students spend four weeks at a local alcohol and drug treatment program. One day a week is devoted to didactic sessions covering psychopharmacology, psychiatric assessment, and child psychiatry plus Psychiatry Grand Rounds. Students perform psychiatric and physical work-ups on assigned inpatients and participate in the assessment and care of outpatients. The goals of the rotation are for the student to hone interviewing skills and to learn the psychiatric interventions that are expected of all non-psychiatrist physicians. The supervision of students’ performance is by attending physicians and residents.

**Surgery Clerkship**

The surgery clerkship is the core of the surgical education program. During the eight-week rotation, students serve on the general and specialty surgical services of Pitt County Memorial Hospital, the SurgiCenter and the associated outpatient clinics, and rotate through private offices and emergency facilities. They assist in the diagnosis and treatment of surgical problems under the direct supervision of the surgical faculty and resident staff. Supporting the clerkship are a series of didactic lectures, rounds and conferences which emphasize the basic principles of surgical physiology, wound care and asepsis, the historical background of surgery, the diagnosis and surgical treatment of various body systems and the emotional needs of surgical patients. Included in the rotation is a course in surgical technique and experience in the operating room suites. Upon completion of the course, the student should have the basic training to evaluate the common surgical disorders and to be knowledgeable in their management.

**Fourth Year**

*(Clinical & Basic Science Electives)*

The fourth year is composed of 36 weeks of electives in the clinical and basic sciences. In concert with a faculty advisor, students select an individual curriculum that includes: two months of primary care experiences, one month of required surgery, one month of required medicine, one month of the Transition into Residency selective, and four months of electives. For additional information, see the Brody School of Medicine Catalog of Selectives. (The listing of selectives is available at the Student Affairs Web site: http://www.ecu.edu/bsomstudentaffairs/Publications_Policies_3_31_03.htm)

**Anatomy**

Clinical Gross Human Anatomy

**Anesthesiology**

Anesthesiology

**Biochemistry**

Control Mechanisms in Metabolism

Introduction to Research

Topics in Human Nutrition

**Educational Courses**

Residency 101

Communicating Health Information

Global Health Care

**Emergency Medicine**

Acting Internship in Emergency Medicine

Emergency Medicine in a Community Hospital

Introduction to Emergency Medicine Services
**Family Medicine**
Acting Internship in Family Medicine (Inpatient)
Acting Internship in Geriatrics
Advanced Family Medicine Clinical Clerkship
Combined Inpatient Acting Internship/Advanced Family Medicine Clinical Clerkship
Community-Oriented Primary Care
Nutrition and Patient Education in Ambulatory Care Settings
Physical Therapy in Ambulatory Care Settings
Rural Community Health
Sports Medicine

**Internal Medicine**
Acting Internship in Cardiology (Inpatient)
Acting Internship in Critical Care Medicine
Acting Internship in General Internal Medicine (Inpatient)
Acting Internship in Hematology/Oncology (Inpatient)
Acting Internship in Nephrology (Inpatient)
Acting Internship in Neurology (Inpatient)
Adult Infectious Diseases
Adult Neurology
Cardiac Catheterization
Clinical Cardiology
Dermatology
Endocrinology and Metabolism
General Internal Medicine
General Internal Medicine in the Community Setting
General Medicine in the Community/VA Clinic
General Outpatient Medicine/Pediatrics
GI, Hepatology and Nutrition
International Health Care Experience
Internal Medicine Consultation Service

**Medical Humanities**
Death and Dying: Philosophical and Moral Issues
Electives in Humanities and Medicine
History of Medicine
Introduction to Law and Medicine
Literature and Medicine
Philosophy and Medicine
War & Medicine: The Physician's Roles & Responsibilities
Women's Studies

**Obstetrics and Gynecology**
Acting Internship in Gynecologic Oncology
Colposcopy
Community Obstetrics and Gynecology

Nephrology
Pulmonary Disease (Outpatient)
Clinical Research in Pulmonary Diseases
Rheumatology
Gynecology
Perinatal Medicine
Research in Reproductive Physiology
Women’s Health Elective

**Pathology and Laboratory Medicine**
Basic Statistics in Laboratory Medicine
Forensic Pathology
The Role of the Pathologist in Medicine

**Pediatrics**
Acting Internship in Pediatric on the Wards
Acting Internship in Hematology/Oncology
Acting Internship in Ambulatory Pediatrics
Acting Internship in Community Pediatrics
Acting Internship in Neonatology
Adolescent Medicine
Cardiology
Caring for Children with Special Health Care Needs
Critical Care/PICU (not offered December and January)
Current Issues in Clinical Genetics (On-Line)
Learning and Behavior Pediatrics
Medical Genetics
Normal Newborn Medicine
Pediatric Infectious Diseases
Pediatric Neurology

**Pharmacology**
Clinical Pharmacology
Current Concepts in Drug Disposition and Metabolism

**Physical Medicine & Rehabilitation**
Acting Internship in Rehabilitation Medicine
Acting Internship in Pediatric Rehabilitation
Ambulatory Physical Medicine and Rehabilitation

Introduction to Rehabilitation Medicine
Introduction to Neurotrauma Rehabilitation
Introduction to Medical Acupuncture
Musculoskeletal Medicine and Chronic Pain Management

**Psychiatric Medicine**
Child and Adolescent Inpatient Psychiatry
Child and Adolescent Psychiatry
Consultation & Liaison Psychiatry
Eclectic Psychiatry
Outpatient Community Psychiatry (Not currently offered)
Outpatient Psychiatry
Substance Abuse Disorders

**Radiology**
Diagnostic Imaging Radiology

**Surgery**
Acting Internship in Cardiothoracic Surgery
Acting Internship in Surgical Critical Care
Acting Internship in General Surgery
Acting Internship in Neurosurgery
Acting Internship in Trauma Surgery
Acting Internship in Vascular Surgery
Ophthalmology
Orthopedic Surgery with Concentration in Sports Medicine
Otorhinolaryngology
Plastic & Reconstructive Surgery
Research in Cardiovascular Surgery
Urology