Student Electives.

Medical Education

Ball Memorial Hospital
Thank you for your interest in Medical Education at IU Health Ball Memorial Hospital. Our institution offers a variety of electives in various disciplines. Each elective allows students to experience real-world practice in a unique private community setting. We are able to achieve this through a three-part collaboration of a community hospital, medical school, and strong community physicians.

First, IU Health Ball Memorial Hospital is a center for academic excellence in graduate medical education. Our residency programs include Family Medicine, Internal Medicine, and Transitional Year. Second, our community is the site for the Indiana University School of Medicine-Muncie, founded through a relationship between the Indiana University School of Medicine and Ball State University. Finally, there is our unique relationship with the primary care and specialty physicians within the community.

During your elective rotation, full room and board are provided in locally, fully-furnished apartments; exercise facilities are available at the wellness center; and meals are provided free of charge at the hospital cafeteria.

For further information or to register for an elective, please contact:
800.279.1666
medstudent@iuhealth.org
Ward Medicine Sub-Internship  
(18MI691)

Description:  
This core rotation is designed to provide students an experience that closely resembles the internship year. Students are assigned to the inpatient Medicine team that cares for patients on the ward setting. Students are given primary patient care responsibilities with a closely guided experience in decision-making and in diagnostic and therapeutic management of typical medical conditions related to general internal medicine and/or related subspecialties. Close supervision is provided by the team's resident and attending physician. Students will provide care to no more than 6 patients at a time and take overnight calls with the team to admit new patients and cover their own patients. The primary method of teaching is active participation in patient care activities with daily teaching attending rounds, daily conferences, and morning report. The course is a one month rotation.

Objectives:  
Students will demonstrate competence in the following areas:
- Communication skills with patients, families, colleagues and ancillary staff
- Coordination of care for patient from initial admission through follow-up with primary care provider
- Information management and prioritization
- Procedural knowledge and skills

Students will apply the above competencies along with their clinical knowledge & skills to learn how to manage patients with the 17 common clinical scenarios as outlined in the course syllabus. Students will gain knowledge of these and other common medical conditions.

Ward Medicine  
(18MI711)

Description:  
This elective is designed to give the student experience normally gained in the internship year. The student will have diagnostic and patient care responsibilities supervised by the Ward Resident and Staff Physicians assigned to the ward. These responsibilities include history and physical examination, order writing, daily progress notes and observation and performance of a broad spectrum of diagnostic and therapeutic medical procedures.

Daily didactic conferences and ample time for reading complement the above.
Family Medicine

(18YF701)

Description:
NOTE: THIS ROTATION MAY BE ADDED WITHIN 15 DAYS NOTICE TO THE DEAN'S OFFICE.

Each senior student will participate in our family medicine center under the supervision of our program directors actively seeing and staffing patients. Further experiences can be custom tailored to the student's needs with opportunities in obstetrics, pediatrics, medicine, procedures, private family practitioner offices, or time in the Family Medicine Residency Center with our residents. All aspects of family medicine will be emphasized, with the following experiences being available:

- Obstetrics (up to 10 - 15 deliveries/month are average for a senior student)
- Outpatient procedures (obstetrical ultrasound, EGD's full colons, treadmill, colposcopy, and derm procedures),
- Inpatient and outpatient adult medicine and pediatrics experiences

Evidence based medicine is utilized wherever possible with literature and database searching capabilities just outside of each exam room allowing information to affect treatment decisions.

Competency II, level two is required by each student with level three being available to motivated students. Competency IV, level three is also available with additional effort.

Course Objective:
The course objectives include exposing medical students to the full spectrum of Family Medicine taught in a friendly, caring environment by dedicated, passionate faculty. Family Medicine encompasses a large spectrum of the health care system. We educate students in all aspects of primary care and assist students in career decisions. First contact with patients, development of differential diagnosis, and expansion of treatment plans will be stressed. Use of IS, evidence based medicine, and exposure to procedures utilized in FM will also be emphasized.

Critical Care

(18MI731)

Description:
The student will be an active member of the ICU team, consisting of a staff physician, a PGY 2 or PGY 3 resident and one or more PGY 1 residents. This elective will provide an introduction to the total management of the critically ill patient. The student responsibility will consist of overseeing the care of patients in the seventeen bed combined medical and surgical intensive care unit at IU Health Ball Memorial Hospital. The student will learn current concepts of airway management and mechanical ventilation, hemodynamic monitoring, nutrition, management of shock and fluid and electrolyte therapy. This elective gives the student ample opportunity to observe and to perform diagnostic procedures. This elective will include ICU attending rounds, clinical conferences, Medicine Grand Rounds and adequate reading time.

Course Director:
Dr. S. Brown

Other Faculty:
Dr. J. Bird
Dr. J. Bunch
Dr. S. Reece
Dr. M. Schreiner
Dr. J. Whitt

Availability:
All year

Number of Units:
1-4 Full Time

Maximum Students/Unit:
2

Prerequisites:
3rd or 4th year status

Course Components:
90% Clinical
10% Lecture

Competency Offered:
IV: Lifelong Learning

Course Director:
Dr. D. Morrical

Other Faculty:
Medicine Staff

Availability:
All year

Number of Units:
1 Full Time

Maximum Students/Unit:
1

Prerequisites:
4th year status

Course Components:
75% Clinical
15% Lecture
10% Library

Competency Offered:
VIII: Problem Solving
### Pathology-Emphasis in Hematopathology (18CA701)

**Description:**
Students will be taught the clinical abnormalities and most of the laboratory techniques for diagnosing the common hematological disorders, including myelodysplasia, myeloproliferative disorders, leukemias, and lymphomas. This will be done by accompanying residents and staff on bone marrow procedures and by studying blood, bone marrow, and lymph node slides under the supervision of the attending staff and residents. The current workload includes 260 bone marrows and 40,000 CBC's annually. Flow cytometry testing, lymph node, fine needle aspirate, bone marrow, and peripheral blood specimens are also readily available.

**Objectives:**
At the conclusion of the elective, the learner will be able to describe the classification system of myelodysplastic syndromes, anemias, myeloproliferative disorders, leukemias, and lymphomas, as well as criteria for making such diagnoses. The learner may also generate reports similar to pathology residents, present a topic of interest related to hematopathology, or submit a case study for publication if interested in level III competency.

### Pathology Elective (18CA711)

**Description:**
Students will participate in the regular teaching activities of the Pathology Department, including daily lectures, demonstrations, and departmental meetings. After these general and basic meetings, the student may elect to spend most of their time in any one or more of the following major subdivisions of pathology for more specialized training and study:

- Surgical Pathology
- Autopsy Pathology
- Clinical Chemistry
- Hematopathology
- Blood Banking
- Microbiology
- Cytopathology

**Objectives:**
At the conclusion of the elective, the learner will be able to describe and have an appreciation for the role of the pathologist and pathology in patient care (i.e., diagnosis, management, therapeutics, and prevention). The learner may also have presented a topic of interest related to one area of pathology or submitted a case study for publication, particularly if interested in level III competency.
OB/GYN Clinical Obstetrics and Gynecology
(18G0701)

**Description:**
Students will have experience in OB including work in the Outpatient Clinic, observation of labor and active participation in delivery, both normal and complicated, in association with residents and staff. Experience and active participation in surgery is included in a one on one situation. Students will participate in office, outpatient and inpatient diagnosis and treatment. Hospital clinics, which include obstetrics and gynecology are utilized in teaching. The OB/GYN department has weekly conferences for continued post graduate medical education, which will be interesting for medical students. Also there are weekly house staff teaching conferences by the OB/GYN department in which the student will participate. Additional information may be obtained from the Hospital Medical Education Director or the Obstetrical Medical Education Director.

**Course Director:**
Dr. D. Lopiccolo

**Availability:**
All year excluding June, July, and August

**Number of Units:**
1-4 Full Time

**Maximum Students/Unit:**
1

**Prerequisites:**
3rd or 4th year status; OB/GYN clerkship must be completed

**Course Components:**
90% Clinical
10% Lecture

**Competency Offered:**
None

Internal Medicine-Emphasis on Cardiology
(18MC701)

**Description:**
It is the objective of this elective to provide opportunities for the student in clinical cardiology including experience in the coronary care unit, intermediate coronary care facility, and common cardiologic problems such as arrhythmias and chest pain syndromes. Emphasis will be placed on clinical cardiology with extensive exposure to coronary artery disease although the student will be exposed to both non-invasive techniques and cardiac catheterization. The students will be under the direct supervision of Dr. Wayne L. Gray, (Cardiac Specialist). In addition, the student will spend approximately 20% of his/her time in the IU Health Ball Memorial Hospital formal intern-resident teaching program which includes various topics in Internal Medicine and Family Medicine.

**Course Director:**
Dr. B. Graham

**Other Faculty:**
Dr. F. Conte
Dr. W. Gray
Dr. M. Moran
Dr. A. Navarette

**Availability:**
All year

**Number of Units:**
1-3 Full Time

**Maximum Students/Unit:**
2

**Prerequisites:**
4th year status

**Course Components:**
90% Clinical
10% Lecture

**Competency Offered:**
None
Internal Medicine-Emphasis on Hematology & Oncology
(18MH701)

Description:
The objective of this elective is to provide the student with an opportunity to evaluate a wide diversity of diagnostic and therapeutic problems in the areas of hematology-oncology. Direct patient contact will be emphasized. The student will participate in the evaluation and management of patients with multiple problems in the above areas. Emphasis will be placed upon the multi-disciplinary approach to the diagnosis and treatment of malignant diseases and the extern will have the opportunity to observe the functioning of the IU Health Ball Memorial Hospital Oncology Unit and the outpatient cancer center. The student will spend a significant period of time participating in the IU Health Ball Memorial Hospital intern-resident teaching program as well.

Course Director:
Dr. M. Williamson

Other Faculty:
Dr. W. Fisher
Dr. H. Rimawi
Dr. J. Spahr

Availability:
All year

Number of Units:
1-3 Full Time

Maximum Students/Unit:
1

Prerequisites:
4th year status

Course Components:
85% Clinical
15% Lecture

Competency Offered:
None

Private Service Adult Hospitalist Medicine
(18MI751)

Description:
This course is designed to give 4th year students a unique experience in the practice of adult Hospitalist Medicine at a community hospital. Attendings are drawn from the hospitalist group at IU Health Ball Memorial Hospital in Muncie. Students will work one on one with a member of the group and will learn to evaluate patients efficiently and formulate an appropriate evidence based treatment plan for a broad range of medical problems. Students will expand their communication skills by interacting with patients and their families, consulting appropriate sub-specialty services, and by participating in multi-professional rounding with pharmacists, case managers, dieticians and therapists. Participation in weekly teaching conferences such as Chest Conference, Tumor Board and Hospitalist Case Presentation and attendance at ground rounds will be expected. Students will work Monday through Friday with the option to work with a nocturnist on Friday evening shifts. During this night time rotation the student's responsibilities include new admissions and communicating effectively with family and medical staff - nurses, pharmacists, respiratory therapists, consulting physicians. At the completion of the rotation students will have developed the necessary skills to effectively manage a variety of medical conditions encountered in hospitalized adult patients.

Course Director:
Dr. C. Gamble

Other Faculty:
Dr. N. Mahendraker
Dr. R. Kumar
Dr. R. Johnston
Dr. C. Shue
Dr. L. Jones-McClure
Dr. S. Vasireddy

Availability:
All year

Number of Units:
1-3 Full Time

Maximum Students/Unit:
1

Prerequisites:
4th year status

Course Components:
85% Clinical
15% Lecture

Competency Offered:
None
Sports Medicine
(18ZS711)

Description:
The sports medicine elective is designed to concentrate on the primary care aspects of sports medicine as well as exposing the student to a multi disciplinary approach to sports medicine practice. During the clerkship the student will be involved in contact with between 300 and 400 acute and chronic sports injuries and illnesses mostly of junior high, high school, and college level athletes as well as a large number of recreational and senior athletes. Patient contacts will come from the Sports Medicine Clinic at Central Indiana Sports Medicine. In addition, training room sessions are available that will allow experience in dealing with acute injuries in Division I and high school athletes.

The medical student will have the opportunity to deal with acute injuries first hand and will gain experience in training of the athlete, emergency care and transportation of the athlete, and finally, definitive diagnostic procedures to be used. Experience will include office care of the athlete, coverage of various sporting events on the campus of Ball State University, and informal teaching sessions with the athletic training staff, physical therapists, and various consultants in sports medicine. The student will gain knowledge not only in the clinical aspects of sports medicine, but also in the philosophy of primary care sports medicine, rehabilitation techniques, and the important aspects of prevention in sports medicine.

Each student will be required to select an area of sports medicine to investigate during their period of rotation. A thorough review of the literature and a short lecture presentation at the end of the elective is required.

General Surgery
(18SG711)

Description:
Course objective will be to provide the student with exposure to a variety of general surgical problems, procedures and operative techniques. Emphasis will be on preoperative and postoperative care as well as actual assistance in the operating room. The clerk will be assigned to one staff surgeon per unit to whom he will be primarily responsible but will also participate in the regular education program of the hospital.

Goals:
This course will expose the student to a busy private General Surgery Practice. Students who are drawn to surgery but are not sure they want the lifestyle that is associated with it should consider this rotation and see how fun and rewarding a surgical practice can be.
Clinical Rheumatology
(18MJ701)

Description:
Note: This course may be dropped/added within 15 days of the beginning of the elective month.

The objective of this course is to give the advanced student experience in diagnosis and clinical management of patients with arthritis and connective tissue disease. A motivated student will be exposed to a busy clinical rheumatology practice that is based within a large multi-speciality group.

Rheumatologic history taking and physical examination are emphasized. The student is able to reinforce these areas with primary responsibility for the in-patient consultative service. Students are also exposed to the role of orthopedic intervention and management of patients with arthritis and post-op musculoskeletal rehabilitation. The student also has the opportunity to participate with internal medicine residency program and attend clinical conferences, grand rounds, morning report, if they so desire.

Pulmonary Medicine
(18MP731)

Description:
This elective will provide an overview of the evaluation and management of adults with a variety of acute and chronic diseases of the respiratory system. During this rotation the student should improve his or her ability to elicit an appropriate history concentrating on the cardinal symptoms of respiratory illness, perform an exam of the respiratory system, and interpret the significance of findings. Exam findings and history will be combined with additional tests such as x-ray, pulmonary functions, and arterial blood gas studies to formulate an appropriate differential diagnosis and management plan. The student will be exposed to a variety of procedures such as bronchoscopy, Swan-Ganz catheter, and mechanical ventilators, thoracentesis and chest tubes. The importance of communication with patient/family/staff and the need for continued self directed learning will be stressed.

Private Practice in Clinical Neurology
(18NR701)

Description:
The objective of this elective will be to develop proficiency in the performance of the neurological examination of adults and children. The clerk will obtain an in-depth experience in the diagnosis and management of multiple neurologic disorders on a very busy clinical neurology service. This experience will provide a sound fundamental framework in neurology for clerks interested in careers in internal medicine or neurology.
The Strength it Takes.

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Family Medicine Residency
Internal Medicine Residency
Transitional Year Residency