University of Michigan Medical School

Visiting Students Elective Catalog 2016-17

Please refer to our Electives Catalog in VSAS to determine course prerequisites, verify when electives are offered, sort courses by specialty, and more.

Revised 3/14/2016
Health Equity Visiting Clerkship

The Health Equity Visiting Clerkship is a 4-week clerkship sponsored by the Office for Health Equity and Inclusion at the University of Michigan. The aim of the clerkship is to promote medical students interested in Health Equity and Inclusion.

The Office for Health Equity and Inclusion leads efforts, advises on best practices, and coordinates initiatives to enhance inclusion, increase diversity, and promote equity across the institution for our patients, staff, faculty and learners.

We work with people who entrust their health care, education, and professional lives to us, especially those who are underrepresented, underserved, marginalized, and vulnerable. In collaboration with many programs and offices on and off campus, we develop programs and establish metrics and monitoring systems that allow all leaders within UMHS to be accountable for our shared commitment to inclusion, diversity and health equity in the communities we serve locally, nationally and globally.

Together with critical stakeholders, we are committed to:

- Improvement of the health and wellbeing of those underrepresented and underserved in health care through continuous quality improvement initiatives, health equity research, inclusion science, implementation science, outcomes research and community based participatory research.
- Creating health equity and inclusion best practices for patient care and pipeline programs for learners, faculty and staff.
- Transforming health care by creating a climate and culture that promotes inclusion, cultural sensitivity, diversity, and health equity.

  - **July** 7/4/2016 - 7/31/2016
  - **August** 8/1/2016-8/28/2016

Eligibility

The Office for Health Equity and Inclusion (OHEI) is proud to announce the availability of funds to support Health Equity Visiting Clerkship to address health care equity and inclusion.

- **Who Is Eligible:** See VSAS Requirements
- **Deadline:** Applications accepted ongoing until March 30th, 2016
- **Awards Notification:** Awardees will be notified by April 15th, 2015
- **Funding Process:** OHEI and Departments
- **Award Amount:** $1,500
  - Housing and accommodations is the sole responsibility of the applicant.
    - [Medical Student Housing Options](#)

Application Process:

**Step 1:** Complete VSAS Application Form
Complete the [VSAS Application](#)

For additional information about [visiting student requirements](#)

**Step 2:** Supply Supplemental Application to the Office for Health Equity and Inclusion
All students must complete the supplemental application for the office for Health Equity and Inclusion.

**Step 3:** Review Process
Once you’ve submitted your application, you will receive a confirmation email. Your request will be reviewed and you will receive a decision regarding funding by April 15th, 2016.
Course: Anesthesiology, Advanced, UMH

Course ID: 031035
Subject: ANESTH
Catalog Number: 001ADVP.U

Requirements Designation: Clinical

Instructors: Dr. Brian Woodcock and other Anesthesiology faculty

Course Contact: Dr. Brian Woodcock; 1H247 University Hospital; 936-4277

Site Coordinator: Vu Willey; 1H247 University Hospital; 232-6128

Duration: 4 weeks

Grading Basis: Graded (H, HP, P, F)

Avg # of Patients Seen Each Week: 14-16

On-Call Responsibility: 1 call per month, stay until 10-11pm

Where to Report First Day of Clerkship: 1H247 University Hospital (Anesthesiology Library); 9:00 a.m.

Objectives:

To Enhance Knowledge And Skills Pertaining To
- Interviewing, physical examination and other patient interactions.
- Interpretation of data.
- Clinical judgment.
- Procedures
  - IV placement, arterial line placement, possible central line or Swan Ganz placement.
  - Airway management including mask ventilation and endotracheal intubation.
  - Regional Anesthesia techniques including lumbar puncture.
- Therapy and advice to patients.

To Increase Student Use/Review Of The Medical Literature
As part of patient care (report to attending).

To Increase Student Involvement In Conferences, Etc. By Having Students
- Present patients and/or patient data.
- Participate as a member of the audience.

Distribution of Student's Time:

- 50% Inpatient Clinical Care
- 20% Outpatient Clinical Care
- 15% Conferences/Lectures/Seminars
- 10% Independent Study
- 5% Simulation

Course Description:
This is an advanced course in Anesthesiology aimed at students who have previously completed an Anesthesiology rotation. Students will receive exposure to all areas of Anesthesiology, but special interests in any specialty area can be catered to by arrangement.
### Anesthesia - UMH

<table>
<thead>
<tr>
<th>COURSE ID: 031059</th>
<th>SUBJECT: ANESTH</th>
<th>CATALOG NUMBER: 001PEDI.U</th>
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</table>

**Requirements Designation:** Clinical  
**Instructors:** Dr. Ian Lewis & other faculty at Mott Hospital  
**Course Contact:** Dr. Brian Woodcock; 1H247 University Hospital; 936-4277  
**Site Coordinator:** Vu Willey: 1H247 University Hospital; 232-6128  
**Duration:** 4 weeks  
**Grading Basis:** Graded (H, HP, P, F)  
**Where to Report First Day of Clerkship:** 4-011 Mott Children's Hospital; 8:00 a.m.; 763-2435

### Objectives:

- **Learning Objectives**
- Contact Faculty Preceptor

### Distribution of Student's Time:

<table>
<thead>
<tr>
<th>Percentage</th>
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<tbody>
<tr>
<td>50%</td>
<td>Inpatient Clinical Care</td>
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<tr>
<td>20%</td>
<td>Conferences/Lectures/Seminars</td>
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<tr>
<td>20%</td>
<td>Outpatient Clinical Care</td>
</tr>
<tr>
<td>10%</td>
<td>Independent Study</td>
</tr>
</tbody>
</table>

### Course Description:

This clerkship will be tailored to meet the individual needs and interests of the students. Previous anesthesia experience is essential. The rotation will include opportunities for learning techniques of intravenous and cannulation endotracheal intubation and LMA placement, outpatient anesthesia, and other special problems of anesthetic management in children. There are opportunities to observe other techniques such arterial and CVP lines, regional techniques, fiberoptic intubation, participation on pain rounds etc. There are special opportunities for studying physiology, pharmacology and patient monitoring in neonates and children during surgery.

The students will be able to attend lectures, journal club meetings, and departmental M&M meetings. The student has an opportunity to give a detailed presentation of a major case or case of interest.
E:Anesthesiology, Pain Managed, UMH

COURSE ID: 031063  SUBJECT: ANESTH  CATALOG NUMBER: 001PRXO.U

Requirements Designation: Clinical
Instructors: Dr. Goodarz Golmirzaie
Course Contact: Dr. Brian Woodcock; 1H247 University Hospital; 936-4277
Site Coordinator: Vu Willey; 1H247 University Hospital; 232-6128
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
On-Call Responsibility: None
Where to Report First Day of Clerkship: 325 East Eisenhower Parkway, Suite 100, Ann Arbor MI; 7:00 a.m.

Objectives:

To Enhance Knowledge And Skills Pertaining To
- Interviewing, physical examination and pain patient interactions.
- Interpretation of data.
- Clinical judgment.

Procedures:
- Observe and assist in a variety of nerve blocks and implant procedures.
- Therapy and advice to patients.

To Increase Student Use/Review Of The Medical Literature
- As part of patient care (report to attending).
- As part of a conference or journal club.

To Increase Student Involvement In Conferences, Etc. By Having Students
- Present patients and/or patient data.
- Participate as a member of the audience.

Distribution of Student's Time:
- 40 % Outpatient Clinical Care
- 30 % Inpatient Clinical Care
- 20 % Independent Study
- 10 % Conferences/Lectures/Seminars

Course Description:

Experience in the evaluation, diagnosis and management of chronic pain patients in an outpatient clinic as well as in inpatient consultation service. The student will also receive instruction and exposure to the management of acute pain mainly for post-operative patients.
Anesthesia - UMH

E:Anesthesiology, Clinical, UMH

COURSE ID: 031042 SUBJECT: ANESTH CATALOG NUMBER: 005CLNI.U

Requirements Designation: Clinical
Instructors: Dr. Brian Woodcock and other Anesthesiology faculty
Course Contact: Dr. Brian Woodcock; 1H247 University Hospital; 936-4277
Site Coordinator: Vu Willey: 1H247 University Hospital; 232-6128
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 14-16
On-Call Responsibility: Once per rotation
Where to Report First Day of Clerkship: 1H247 University Hospital (Anesthesiology Library); 9:00 a.m.

Objectives:
To Enhance Knowledge And Skills Pertaining To
  Interviewing, physical examination and other patient interactions.
  Interpretation of data.
  Clinical judgment.
  Procedures:
  IV placement, arterial line placement, possible central line or Swan Ganz placement.
  Airway management including mask ventilation and endotracheal intubation.
  Spinal anesthesia (lumbar puncture), possible other regional anesthetic techniques.
  Therapy and advice to patients.
To Increase Student Use/Review Of The Medical Literature
  As a part of patient care (report to attending).
To Increase Student Involvement In Conferences, Etc. By Having Students
  Present patients and/or patient data.
  Participate as a member of the audience.
  Tutorials specifically for the medical students.
Additional Objectives
  Teach principles of acute care and resuscitation.
  Emphasize applied physiology and pharmacology.
  Introduction to various anesthetic techniques and anesthetic risk.
Distribution of Student's Time:

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<tr>
<td>50</td>
<td>Inpatient Clinical Care</td>
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<tr>
<td>20</td>
<td>Conferences/Lectures/Seminars</td>
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<tr>
<td>20</td>
<td>Outpatient Clinical Care</td>
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<tr>
<td>10</td>
<td>Independent Study</td>
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Course Description:
This course provides an introduction to all aspects of clinical anesthesiology. Students will be taught about; pre-operative assessment; intra-operative management of patients in the specialties of general, vascular, neurosurgical, pediatric, cardiac, obstetric, gynecologic, ENT, and orthopedic anesthesia. They will spend time in Pre-op clinic, pain management and clinic, Critical Care, the pre-op holding room and PACU. Practical skills developed will include endotracheal intubation and line placement.
**Dermatology - VA UMHS**

**COURSE ID: 045173**  
**SUBJECT: DERM**  
**CATALOG NUMBER: 1CLNO.X**

**Requirements Designation:** Clinical

**Course Contact:** Thy Thy Do, M.D.; 232-6178

**Site Coordinator:** Jackie Giletto; 936-4084

**Duration:** 4 weeks

**Grading Basis:** Graded (H, HP, P, F)

**Avg # of Patients Seen Each Week:** >50

**On-Call Responsibility:** None

**Where to Report First Day of Clerkship:** Reception B, 1910 Taubman Health Center; 9:00AM unless otherwise instructed by Clerkship Coordinator.

**Objectives:**

**To Enhance Knowledge And Skills Pertaining To**
- Interviewing, physical examination and other patient interactions.
- Interpretation of data.
- Clinical judgment.
- Procedures:
  - KOH preps/fungal cultures.
  - Minor skin biopsy.
  - Minor skin surgery/destructions.
  - Therapy and advice to patients.

**To Increase Student Use/Review Of The Medical Literature**
- As part of patient care (report to attending).

**To Increase Student Involvement In Conferences, Etc. By Having Students**
- Participate as a member of the audience.

**Additional Objectives**
- To develop observational skills.
- To develop analytic thinking with respect to differential diagnosis.

**Distribution of Student's Time:**

<table>
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<tr>
<th>Percentage</th>
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<tbody>
<tr>
<td>85%</td>
<td>Outpatient Clinical Care</td>
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<tr>
<td>10%</td>
<td>Conferences/Lectures/Seminars</td>
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<tr>
<td>5%</td>
<td>Inpatient Clinical Care</td>
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**Course Description:**

Students will be exposed to various clinical settings for dermatologic care, involving a number of different patient populations, while shadowing residents. Students will spend the majority of their time in Taubman and Domino's Farms Clinics, but will also spend some time in Mohs Clinic, Melanoma Clinic, Merkel Cell Clinic, UHS, the VA, and going on inpatient consults. Additionally, students are expected to attend lectures, complete the required reading, and at the end of the rotation give a short presentation and take a quiz. Students will learn a practical differential diagnosis and treatment for common skin diseases.
Wilderness Medicine, UMH

COURSE ID: 044654  SUBJECT: EMERGMED  CATALOG NUMBER: 1WLDR.U

Requirements Designation: Elective (non-clinical)
Special Instructions: This rotation requires a $500 Stipend from student to pay for gear rental, outside activities, and transportation for the 6-day excursion to Northern Michigan, as well as lodging in Northern Michigan before/after camping. There may be additional minimal expenses for personalized food and gear needs. Must have ability to hike 45 miles. There will be required events on all of the weekends and an optional thing over Labor Day with details TBD

Instructors: Nate Brouwer, MD, nbrouwer@med.umich.edu and senior EM house officers
Course Contact: Nate Brouwer, MD; nbrouwer@med.umich.edu
Site Coordinator: Heather Wourman, cerovski@umich.edu, 734-763-1271
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)

Avg # of Patients Seen Each Week: N/A

On-Call Responsibility: No call, but there are 8 days spent in the Upper Peninsula as well as one overnight camping trip and MedWars that are required

Where to Report First Day of Clerkship: B1380 Taubman Center. University of Michigan. TIME: 9:00 AM. Make sure to check email from Heather Wourman for changes in location, date, and time.

Objectives:

To Enhance Knowledge And Skills Pertaining To

Interviewing, physical examination and other patient interactions clinical judgment procedures: Lateral canthotomy, needle decompression of tension pneumothorax, dental molds, splinting, fracture and dislocation reduction.

Distribution of Student's Time:

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<thead>
<tr>
<th>Percentage</th>
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<tbody>
<tr>
<td>50%</td>
<td>Conferences/Lectures/Seminars</td>
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<tr>
<td>20%</td>
<td>See course description below.</td>
</tr>
<tr>
<td>20%</td>
<td>Clinical Research</td>
</tr>
<tr>
<td>10%</td>
<td>Independent Study</td>
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Course Description:

The Wilderness Medicine elective at U of M is offered during period 5. Approximately 37 hours of lectures are given by UMHS faculty and residents to the senior medical students. The majority of lecturers will be from the Department of Emergency Medicine but many guest lecturers from other departments within UMHS as well as from other institutions will be featured. Reading assignments are from Auerbach’s text Wilderness Medicine (5th edition), which are available online through MD Consult. Students are encouraged to use Field Guide to Wilderness Medicine to augment other readings, and as a field handbook. The course will include small group discussions of wilderness scenarios, formal lectures of specific topics and principles in Wilderness Medicine, and hands-on instruction in the field regarding pre-hospital patient care, evacuation, and survival. The course will include a multi-day camping field practicum in Northern Michigan that will involve patient assessment, treatment, evacuation, and field skills. Students must participate in the regional MedWars competition. An evidenced-based case presentation is required at the end of the rotation. A second overnight camping trip is required as part of the practical portion of the final exam. A final multiple question examination covering the reading material and lectures is also required as part of the rotation.

Students must be able to participate in multiple unique learning modalities, which include out of classroom experiences requiring a basic level of physical fitness. Specific trip and gear planning recommendations will be included as part of initial orientation.

THIS ELECTIVE HAS TIERED GRADING AND IS NOT SATISFACTORY/FAIL. Students must be enrolled in this course by 8/1/16.
EM Critical Care Elec, UMH

COURSE ID: 046404  SUBJECT: EMERGMED  CATALOG NUMBER: 2ECCI.U

Requirements Designation:  Clinical
Instructors:  John Litell, DO; Co-Director: Michael Cole, MD
Site Coordinator:  Heather Wourman, Email: cerovski@med.umich.edu Phone: 734-763-1271
Duration:  4 weeks
Grading Basis:  Graded (H, HP, P, F)
Avg # of Patients Seen Each Week:  15
On-Call Responsibility:  See below
Where to Report First Day of Clerkship:  Emergency Critical Care (EC3) TIME: 8a; See email from Heather Wourman for more details.

Objectives:

Learning Objectives
1. Demonstrate a deep integrated knowledge with a focus on science that will include advanced pathophysiology of diseases affecting specific organ systems, anatomy, pathophysiology and pharmacology
2. The student will assume primary responsibility for providing comprehensive care to patients.
3. Demonstrate the ability to
   1) critically evaluating medical data, both clinical and laboratory, routinely available in the critical care setting,
   2) diagnose the condition of a patient on the basis of such data, and
   3) synthesize a comprehensive plan of management for that condition.
4. Demonstrate critical care treatment and procedures.

Distribution of Student’s Time:
<table>
<thead>
<tr>
<th>Percentage</th>
<th>Activity</th>
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<tbody>
<tr>
<td>85%</td>
<td>Emergency Department Clinical Care</td>
</tr>
<tr>
<td>15%</td>
<td>Conferences/Lectures/Seminars</td>
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Course Description:

This elective will focus on the initial stabilization and subsequent resuscitative care of patients within the first 24 hours from presentation. The experience will leverage the new Emergency Critical Care Center (EC3) at the University of Michigan Health System, which was created to enhance the capacity and capability to deliver high quality critical care in the adult emergency department. Students will work day and night clinical shifts in EC3 (8 to 12 hour), receive core content lectures from EC3 faculty and fellows, present patients in follow up conference, and will have access to UMHS EM didactics.
Emergency Medicine - UMH

Course ID: 031115  Subject: EMERGMED  Catalog Number: 005MEDO.U

Requirements Designation: Emergency Med., Clinical
Special Instructions: See list of EM Blackout dates in the Clinical Years Handbook.
Course Contact: Joe House, MD; B1380 Taubman Center, Box 5305, 734-763-1271
Site Coordinator: Heather Wourman, cerovski@umich.edu
Duration: 4 Weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 25-35
On-Call Responsibility: None. Shift work, which includes mandatory days, afternoons, evenings, nights and weekends.
Where to Report First Day of Clerkship: B1380 Taubman Center, University of Michigan
8:00 AM First Day of Clerkship (Make sure to check email for location, date, and time.)

Objectives:
To Enhance Knowledge And Skills Pertaining To
Focused history and physical exam of acute illness and injury.
Clinical judgment.
Procedures including:
IV placement, arterial line placement, airway management including mask ventilation and endotracheal intubation, lumbar puncture, regional anesthetic techniques, wound care and suturing, splinting, therapy and advice to patients.
Students will learn appropriate disposition and aftercare of patients seen for both acute and recurrent illnesses and injury.
Students will be taught principles of acute care and resuscitation. The rotation will emphasize applied physiology and pharmacology and introduce various emergency procedures and techniques.

Distribution of Student's Time:
<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
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<tbody>
<tr>
<td>80%</td>
<td>Emergency Department Clinical Care</td>
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<tr>
<td>10%</td>
<td>Conferences/Lectures/Seminars</td>
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<tr>
<td>10%</td>
<td>Simulation</td>
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Course Description:
NOTE: All students will complete 15 clinical shifts.

NOTE: Students MUST attend required didactic days and complete shift requirements. Students should recognize that this is a busy clerkship and release time is NOT guaranteed. Blackout dates cannot be missed. See EM Black Out dates.

Students will be exposed to basic principles of EM, including triage, resuscitation and evaluation of undifferentiated patients, both adult and pediatric. The didactic curriculum will cover common EM concepts and presentations and will occur at UMHS.

UMHS is a tertiary care setting, which will expose the student to high acuity and high complexity medical and trauma patients in addition to more common illness presentations.
EM Critical Care Sub, UMH

COURSE ID: 046405  SUBJECT: EMERGMED  CATALOG NUMBER: 803ECUI.U

Requirements Designation: Sub I / ICU, Clinical
Instructors: John Litell, MD, Michael Cole, MD and other EC3 Faculty and Fellows
Course Contact: John Litell, MD; litell@med.umich.edu
Site Coordinator: Heather Wourman, Email: cerovski@med.umich.edu Phone: 734-763-1271
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 15
On-Call Responsibility: See below
Where to Report First Day of Clerkship: Emergency Critical Care (EC3) TIME: 8a; See email from Heather Wourman for more details.

Objectives:

Additional Objectives
Please refer to SubI objectives in the Subinternship section of the M4 Handbook.

Distribution of Student's Time:
45% Emergency Department Clinical Care
45% Inpatient Clinical Care
10% Conferences/Lectures/Seminars

Course Description:

The purpose of the intensive care sub-internship is to prepare students for residency training and future clinical practice. The educational goals for acting internship can be subdivided into three general categories: knowledge, skills and attitude/professional development. This Emergency Care & Intensive Care Unit month will focus on the emergency and critical care of patients in the first 24 hours of presentation. The experience will take leverage the newly created Emergency Critical Care Center (EC3) at the University of Michigan Health System that was created to improve access to timely critical care. In addition to M3 year skills, where emphasis is placed on information gathering and assessment; the sub-internship needs to place sufficient emphasis on management and deep understanding of science. Management should include common critical care medical and surgical problems and clinical pharmacology and therapy.

The sub-intern assumes primary responsibility for providing comprehensive care to patients.
The sub-intern is responsible for thorough clinical evaluations, acquisition of appropriate data from diagnostic tests, creating management plans, prescribing therapy and assessing the effects of the therapy.
The sub-intern acts as much like an intern as possible.
The sub-intern is an integral part of the patient care team on the assigned medical service.
Sub-Interns will work five 8-12 hour shifts a week including days, nights and weekends.
Family Medicine - UMH

COURSE ID: 031129  SUBJECT: FAMMED  CATALOG NUMBER: 703FAMI.U

Requirements Designation: Sub I, Clinical
Course Contact: Kent J. Sheets, PhD; 1018 Fuller Street/1213; 998-7138
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 15 Inpatient; 0-2 Outpatient.
On-Call Responsibility: No overnight call
Where to Report First Day of Clerkship: University Hospital. Students will be notified by email in advance of the beginning of the clerkship

Objectives:

Additional Objectives
Please refer to SubI objectives in the Subinternship section of the M4 Handbook.

Distribution of Student's Time:
90 % Inpatient Clinical Care
10 % Conferences/Lectures/Seminars

Course Description:

This 4-week experience provides the student intern-level responsibilities on the University Family Medicine (UFM) adult inpatient service. Care is provided under the supervision of family medicine senior residents and attending physicians.

Students may go on nursing home rounds and make home visits if desired. Students function under the direct supervision of Family Medicine faculty and residents. Students may also work with a physician assistant on occasion. Any absences other than those related to illness must be approved at least one month in advance by Dr. Sheets. Activities are scheduled to maximize the student's experience and attendance is crucial and required.
E:Med., Endocrinology, UMH

COURSE ID: 031356  SUBJECT: INTMED  CATALOG NUMBER: 001E&MO.U

Requirements Designation: Clinical
Instructors: Dr. Liselle Douyon and Endocrinology & Metabolism Faculty
Course Contact: Dr. Liselle Douyon; Domino Farms (Lobby C, Suite 1300) 24 Frank Lloyd Wright Drive; 647-5400
Site Coordinator: Ms. Sonja Hughbanks, slbanks@umich.edu; ext 75400
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: varies
On-Call Responsibility: None
Where to Report First Day of Clerkship: Contact Dr. Liselle Douyon/Ms Sonja Hughbanks at 647-5400 or email (slbanks@umich.edu) in advance for info and addition to the C-Tools website.

Objectives:
To Enhance Knowledge And Skills Pertaining To
Interviewing, physical examination and other patient interactions.
Interpretation of data.
Clinical judgment.
Therapy and advice to patients.
The acute and long term management of the endocrine patient.
The endocrine resources at the University of Michigan.

To Increase Student Use/Review Of The Medical Literature
As part of patient care (report to attending).
As part of a conference or journal club.
As a member of C-Tools site.

To Increase Student Involvement In Conferences, Etc. By Having Students
Present patients and/or patient data.
Participate as a member of the audience.
Discuss patients at clinical conference.
Discuss subject matter.

Distribution of Student’s Time: 70 % Outpatient Clinical Care
                               25 % Inpatient Clinical Care
                               5 % Conferences/Lectures/Seminars

Course Description:
The study of endocrinology is fascinating. As a member of the endocrine consultation team, the student will see a wide variety of endocrine/metabolic disorders. He/she will have an active role evaluating and treating patients on the inpatient consultation service and in several of the outpatient Metabolism, Endocrinology and Diabetes clinics. He/she will also participate in didactic clinical conferences and teaching rounds. A C-Tools website has been developed to complement the clinical experience.
Gastroenterology, UMH

COURSE ID: 045192       SUBJECT: INTMED       CATALOG NUMBER: 1GI-P.U

Requirements Designation: Clinical
Instructors: G.I. Faculty
Course Contact: G.I. Faculty
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
On-Call Responsibility: None
Where to Report First Day of Clerkship: Page GI Consult Fellow on Call (listed on call website) at 8 am on first day.

Objectives:
To Enhance Knowledge And Skills Pertaining To
- Interviewing, physical examination and other patient interactions.
- Interpretation of data.
- Clinical judgment.
- Therapy and advice to patients.

To Increase Student Involvement In Conferences, Etc. By Having Students
Participate as a member of the audience.

Distribution of Student's Time: 100 % Inpatient Clinical Care

Course Description:
Course is designed to allow students to assume gradually increasing responsibility in the care of inpatient and outpatient patients with Gastroenterological problems. Integration of basic internal medicine skills with subspecialty GI patients is emphasized. Basic lectures covering GI topics will give fundamental skills to the students.
Medicine, Hematology, UMH

COURSE ID: 032746                      SUBJECT: INTMED                      CATALOG NUMBER: 001HEMI.U

Requirements Designation:  Clinical
Instructors:  Hematology/Oncology Faculty
Course Contact:  Francis P. Worden, M.D.
Site Coordinator:  Francis P. Worden, M.D., B1-364 CCC, 1500 E. Medical Center Drive, SPC 5912, phone 615-6633
Duration:  4 weeks
Grading Basis:  Graded (H, HP, P, F)
Avg # of Patients Seen Each Week:  8
On-Call Responsibility:  None
Where to Report First Day of Clerkship:  Contact Hematology Consultation Service Fellow or Attending Physician.

Objectives:
To Enhance Knowledge And Skills Pertaining To
  Interviewing, physical examination and other patient interactions.
  Interpretation of data.
  Clinical judgment.
  Procedures:
  Bone Marrow Aspiration and Biopsy.
  Interpretation of Peripheral Blood Smears.
  Therapy and advice to patients.
To Increase Student Use/Review Of The Medical Literature
  As part of patient care (report to attending).
  As part of a conference or journal club.
To Increase Student Involvement In Conferences, Etc. By Having Students
  Present patients and/or patient data.
  Participate as a member of the audience.

Distribution of Student’s Time:  100 %  Outpatient Clinical Care

Course Description:
Students participating in this elective consultation service will have the opportunity to evaluate patients with, and learn about, benign and malignant hematologic disorders. The diseases typically encountered include: various low blood counts (anemia, leukopenia, thrombocytopenia), bleeding and clotting disorders, multiple myeloma, lymphoma, myeloproliferative disorders and others. Students will be responsible for taking the history and physical examination, collecting and assimilating laboratory and diagnostic study data, and formulating recommendations for further diagnostic work-ups and therapy. These activities will be performed in the inpatient and outpatient settings.
Nephrology, UMH

COURSE ID: 044663 SUBJECT: INTMED CATALOG NUMBER: 1NEPP.U

Requirements Designation: Clinical
Instructors: Nephrology Faculty
Course Contact: Dr. Panduranga S. Rao, spandu@umich.edu 615-3994
Site Coordinator: Respective Supervising faculty
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 10
On-Call Responsibility: None
Where to Report First Day of Clerkship: 3914 Taubman Health Center; 8:00 a.m. Page Renal Consults Fellow on call.

Objectives:

To Enhance Knowledge And Skills Pertaining To
- Interviewing, physical examination and other patient interactions.
- Interpretation of data.
- Clinical judgment.

To Increase Student Use/Review Of The Medical Literature
- As part of patient care (report to attending).
- As part of a conference or journal club.

To Increase Student Involvement In Conferences, Etc. By Having Students
- Present patients and/or patient data.
- Participate as a member of the audience.

Distribution of Student's Time:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>45%</td>
<td>Inpatient Clinical Care</td>
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<tr>
<td>45%</td>
<td>Outpatient Clinical Care</td>
</tr>
<tr>
<td>5%</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
<tr>
<td>5%</td>
<td>Simulation</td>
</tr>
</tbody>
</table>

Course Description:

This course combines intensive exposure to both outpatient and inpatient nephrology. In patient nephrology service experience includes 2 weeks of consultative practice on general ("acute") and transplant nephrology services. The student will evaluate and assess inpatients with acute kidney injury, acute and chronic glomerulonephritis, vasculitis, fluid and electrolyte disorders, new kidney allografts, complications associated with kidney transplantation, and other aspects of inpatient nephrology including interventional nephrology (tunneled catheter placement, renal biopsy, angioplasty and thrombectomy of vascular accesses). Outpatient experience included encounters with a wide variety of renal outpatients in various clinical venues including general nephrology clinic, glomerular diseases clinic, stone clinic, CKD multidisciplinary clinic, transplant evaluation clinic, geriatric nephrology clinic, transplantation evaluation clinic and candidacy meeting, acute post-op transplantation clinic, outpatient hemodialysis clinic, and peritoneal dialysis clinic. The student will obtain a broad exposure to modern nephrology practices. Discussions and presentations regarding the social, ethical and economic aspects of end-stage renal disease care, including health disparity aspects, will be incorporated into the rotation.
E:Medicine, Allergy, UMH

COURSE ID: 031261  SUBJECT: INTMED  CATALOG NUMBER: 002ALLO.U

Requirements Designation: Clinical
Instructors: Alan P. Baptist, M.D.
Course Contact: Dr. Alan P. Baptist, Domino's Farms, Ste H 2100 SPC 5750
Site Coordinator: Echo Reed, 232-2154
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 10-20
On-Call Responsibility: None
Where to Report First Day of Clerkship: Domino's Farms, Lobby H, Suite H 2100; 8:30 a.m. Please call 2 weeks in advance, 232-2154

Objectives:

To Enhance Knowledge And Skills Pertaining To
Interviewing, physical examination and other patient interactions.
Interpretation of data.
Clinical judgment.
Procedures:
Immediate skin test.
Interpretation of expiratory spirograms.
Therapy and advice to patients.

To Increase Student Use/Review Of The Medical Literature
Syllabus and handouts are provided.

Distribution of Student's Time: 100 % Outpatient Clinical Care

Course Description:
With staff supervision, students have the opportunity to identify, evaluate and treat immunologic conditions in adults and children at the UMH. Besides the atopic diseases (asthma, allergic rhinitis and eczema) experience is gained in managing urticaria, reactions to drugs and diagnostic agents, and stinging insect allergy. Immunodeficiencies and additional clinical immunological disorders give variety to the problems encountered. Practical environmental approaches to allergic disease and proper application of laboratory resources are stressed. Outpatient clinical experience is supplemented by involvement in inpatient consultations and opportunities to observe and perform laboratory procedures, as well as the weekly Grand Rounds and teaching seminars of the Allergy Division. Conference attendance is twice/week regarding A/I topics.
E:Medicine, Arthritis, UMH

COURSE ID: 031278  SUBJECT: INTMED  CATALOG NUMBER: 002ARTO.U

Requirements Designation: Clinical
Instructors: Rheumatology faculty and fellows
Course Contact: Seetha Monrad, M.D.; Ste 7C27 North Ingalls Building, 936-5560
Site Coordinator: Cindy Bourke, 936-5560
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 5 (individual) 20 (as group)
On-Call Responsibility: None
Where to Report First Day of Clerkship: email Dr. Monrad 1 week before rotation starts. If rotation begins on Monday, you'll begin at VA Rheum. clinic, basement of VA outpatient bldg.

Objectives:

To Enhance Knowledge And Skills Pertaining To
Interviewing, physical examination and other patient interactions.
Interpretation of data.
Clinical judgment.
Procedures:
Arthrocentesis.
Synovial fluid exam.
Needle muscle biopsy (observation: optional).
Minor salivary gland biopsy (observation: optional).
Closed synovial biopsy (observation: optional).
Therapy and advice to patients.

Clerkship Objectives
By the end of this rotation, students will be able to:

1) Compare and contrast the epidemiological, historical, and clinical features of different inflammatory arthritides and multisystem autoimmune disorders
2) Discuss the uses, benefits, and side effects of medications used in the management of rheumatic disease, including NSAIDs, corticosteroids, and rheumatic immunosuppressive agents
3) Elicit a complete and relevant history from patients with known or suspected rheumatic disease; perform thorough and proficient physical examinations, particularly of the musculoskeletal system; select and interpret relevant laboratory and radiologic studies; and synthesize multiple sources of information to create an appropriate differential diagnosis and management plan
4) Perform a knee or other joint aspiration/injection
5) Demonstrate professional and compassionate communication with and advocacy for patients
6) Demonstrate professional behavior with colleagues and allied health professions, including exemplary teamwork
7) Demonstrate self-directed learning through participation in conferences, review and discussion of literature relevant to patient care, and presentation of to team members

Student assessment/evaluation
Observation of performance by faculty and house officers
Verbal and written presentations

To Increase Student Use/Review Of The Medical Literature
As part of patient care (report to attending)
As part of a conference or journal club.

To Increase Student Involvement In Conferences, Etc. By Having Students
Present patients and/or patient data.
Participate as a member of the audience.

Additional Objectives
Introduction to procedures appropriate to service, i.e., arthrocentesis.

Distribution of Student's Time:
75 %  Inpatient Clinical Care
20 %  Outpatient Clinical Care
5 %  Conferences/Lectures/Seminars
**Course Description:**

This elective will provide experience in the evaluation, diagnosis, and care of patients with suspected and established rheumatic diseases. The Rheumatology Consultation service at University Hospital evaluates patients on Internal Medicine, Surgery, Ob/Gyn, Neurology and other services. Consultation for inpatients at Veterans Hospital provided on "as needed" basis. Students on service will also see outpatients in the Rheumatology Clinic under the direction of a division faculty members.

If desired, students may participate in procedures relevant to rheumatology, including arthrocentesis, musculoskeletal ultrasonography, muscle biopsy and labial salivary gland biopsy.
E:Medicine, Infectious Disease, UMH

COURSE ID: 031539  SUBJECT: INTMED  CATALOG NUMBER: 004ID-I.U

Requirements Designation: Clinical

Instructors: Drs. Kauffman, Engleberg, Markovitz, Kazanjian, Bradley, Chenoweth, Cinti, Patel, Gandhi, Kaul, Malani, Micelli, Riddell, Smith, Washer, Young, Mills

Course Contact: Dr. Cary Engleberg; 3119 Taubman Health Center; 936-5205

Duration: 4 weeks

Grading Basis: Graded (H, HP, P, F)

Avg # of Patients Seen Each Week: 5-8

On-Call Responsibility: None

Where to Report First Day of Clerkship: Call 936-5205 1 week prior to start date. Report on the first day to 3119 Taubman Health Center.

Objectives:

To Enhance Knowledge And Skills Pertaining To
- Interviewing, physical examination and other patient interactions.
- Interpretation of data.
- Clinical judgment.

To Increase Student Use/Review Of The Medical Literature
- As part of patient care (report to attending).

To Increase Student Involvement In Conferences, Etc. By Having Students
- Present patients and/or patient data.
- Participate as a member of the audience.

Distribution of Student's Time:

90 % Inpatient Clinical Care
10 % Conferences/Lectures/Seminars

Course Description:

Students who participate in the consultation rotation will learn from hands-on experience managing hospitalized patients. As members of the consultation service, students will perform the initial evaluation on new patients with infectious problems and will be supervised by the Infectious Diseases Fellow and the Attending Physician in generating the appropriate clinical data base and in formulating a management plan. Each day, students will present new patients and discuss the follow-up of ongoing patients with the Attending at afternoon rounds. Some reading to supplement case discussions may be assigned, but the students are expected to increase their knowledge base on each problem they confront by independent reading. Students can expect to evaluate three to five patients per week throughout the course of the rotation.
Pulmonary Consults, UMH

COURSE ID: 031659    SUBJECT: INTMED    CATALOG NUMBER: 010PULI.U

Requirements Designation: Clinical
Instructors: Pulmonary Faculty
Course Contact: Dr. Cyril Grum, 936-1221
Site Coordinator: Dr. Cyril Grum, grum@umich.edu
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
On-Call Responsibility: No Call
Where to Report First Day of Clerkship: 3916 Taubman Health Center; 8:00 a.m.

Objectives:

To Enhance Knowledge And Skills Pertaining To
  Interviewing, physical examination and other patient interactions.
  Interpretation of data.
  Clinical judgment.
  Therapy and advice to patients.

To Increase Student Use/Review Of The Medical Literature
  As part of patient care (report to attending).
  As part of a conference or journal club.

To Increase Student Involvement In Conferences, Etc. By Having Students
  Participate as a member of the audience.

Distribution of Student’s Time:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Activity</th>
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<tbody>
<tr>
<td>85 %</td>
<td>Inpatient Clinical Care</td>
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<tr>
<td>10 %</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
<tr>
<td>5 %</td>
<td>Outpatient Clinical Care</td>
</tr>
</tbody>
</table>

Course Description:

The student is a member of the Pulmonary Consults Service for this elective. The Consults Service sees a wide scope of chest diseases. The clerkship emphasizes: history, physical and diagnostic techniques; physiologic, roentgenographic and pathologic correlations and treatment. Students independently evaluate pulmonary referrals prior to personal bedside review with house officers, fellows and faculty. Students participate in diagnostic procedures and conferences.
### Neurology - UMH

**Course ID:** 031719  
**Subject:** NEUROL  
**Catalog Number:** 001ARRI.U

**Requirements Designation:** Clinical

**Instructors:** Staff (attending and residents on Neurology Consultation Service)

**Course Contact:**  
Dr. Douglas Gelb; 1914-N Taubman Health Center, SPC 5316; 734-936-4549

**Site Coordinator:** Sheryll Marshall; 1914 Taubman Health Center, SPC 5316; 734-936-4549

**Duration:** 4 weeks

**Grading Basis:** Graded (H, HP, P, F)

**Avg # of Patients Seen Each Week:** 5

**On-Call Responsibility:** None

**Where to Report First Day of Clerkship:** Meet in the Department of Neurology's DeJong Library, Room 1912 Taubman Center, promptly at 7:45 AM.

### Objectives:

- **To Enhance Knowledge And Skills Pertaining To**  
  - Interviewing, physical examination and other patient interactions.  
  - Interpretation of data.  
  - Clinical judgment.  
  - Therapy and advice to patients.

- **To Increase Student Use/Review Of The Medical Literature**  
  As part of patient care (report to attending).

- **To Increase Student Involvement In Conferences, Etc. By Having Students**  
  Participate as a member of the audience.

### Distribution of Student's Time:

<table>
<thead>
<tr>
<th>Percentage</th>
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<tbody>
<tr>
<td>60%</td>
<td>Inpatient Clinical Care</td>
</tr>
<tr>
<td>30%</td>
<td>Outpatient Clinical Care</td>
</tr>
<tr>
<td>10%</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
</tbody>
</table>

### Course Description:

The student is a member of the Neurology Consultation service, seeing patients from other clinical services in the Medical Center (including the Emergency Department). He/she does a complete examination and then presents the case to the neurology senior resident and attending physician. The student attends all of the neurology conferences.
Sports Neurology, UMH

COURSE ID: 045747          SUBJECT: NEUROL          CATALOG NUMBER: 1SPNO.U

Requirements Designation: Clinical
Instructors: Matthew T. Lorincz MD, PhD and Andrea Almeida, MD
Course Contact: Sheryll Marshall, 734-936-4549, marshals@med.umich.edu
Site Coordinator: Allison Gates, 734-232-1186, algates@med.umich.edu
Duration: 4 Weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 10
On-Call Responsibility: No Call
Where to Report First Day of Clerkship: Contact Joyce Gordon to confirm location and time.
Email: jarregui@med.umich.edu
Phone: 734-936-1808

Keywords: Sports Neurology, Concussion, Sports Medicine

Objectives:

To Enhance Knowledge And Skills Pertaining To
Interviewing, physical examination and other patient interactions
Interpretation of data
Clinical judgment
Therapy and advice to patients

Distribution of Student's Time:

50 % Outpatient Clinical Care
40 % Independent Study
10 % Conferences/Lectures/Seminars

Course Description:

1. Appreciate the complexity and breadth of the sports neurology outpatient clinic
2. Develop a comprehensive approach to the diagnosis and management of sports concussion
3. Explain the myths behind the risks of playing contact sports.
Neurosurgery - UMH

Neurosurgery Sub I, UMH

COURSE ID: 045227  SUBJECT: NEUSURG  CATALOG NUMBER: 701NRSI.U

Requirements Designation: Sub I, Clinical
Instructors: Neurosurgery faculty
Course Contact: Dr. Jason Heth; 3552 Taubman Health Center; 936-5017
Site Coordinator: Connie McGovern
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 5
On-Call Responsibility: 3 weekdays, 1 weekend day during rotation
Where to Report First Day of Clerkship: 3552 Taubman Center; 8:30 AM

Objectives:

Clerkship Objectives (Beyond Comprehensive Care Of Patients Including Evaluation, Diagnosis And Therapy)

- To increase student involvement in conferences, journal clubs, etc.
- To increase student involvement in the operating room
- By having students:
  - Prepare presentations given at department conferences
  - Prepare presentations of patients and patient data
  - Participate at an appropriate level in the operating room.

Additional Objectives

Please refer to SubI objectives in the Subinternship section of the M4 Handbook.

Distribution of Student's Time:

<table>
<thead>
<tr>
<th>Distribution</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Inpatient Clinical Care</td>
<td>60 %</td>
</tr>
<tr>
<td>Outpatient Clinical Care</td>
<td>20 %</td>
</tr>
<tr>
<td>Conferences/Lectures/Seminars</td>
<td>10 %</td>
</tr>
<tr>
<td>Emergency Department Clinical Care</td>
<td>10 %</td>
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</table>

Course Description:

This course exposes the student to adult and pediatric patients with neurosurgical problems including brain tumors, epilepsy / functional neurological disorders, cerebrovascular disorders, and spine and peripheral nerve disorders. Critical thinking in diagnosis and management will be stressed. The student will be a member of a neurosurgery team, and general care management and surgery on a regular basis. They are expected to write-up at least 1 patient per week, be on call one day per week (total of 3 weekdays and 1 weekend day) and give a short historical review/powerpoint presentation during a department conference. Students will be paired with a faculty mentor, and are expected to attend all regularly scheduled conferences and assigned clinics.

GUIDELINES FOR MEDICAL STUDENT SUB-INTERNS ON NEUROSURGERY

1. General Information:
   At the beginning of each rotation, each medical student will be assigned to one of the clinical neurosurgery services for each week of the 4-week rotation. There are two adult neurosurgery services (Peet and Kahn), one pediatric neurosurgery service (Peds), a VA service, and a Neuro-ICU service. Each student will be expected to make early morning rounds with the resident staff on their assigned service and also afternoon rounds when appropriate.
   In addition, you will be assigned a department mentor (consistent with your subspecialty interest when possible).
   Students are encouraged to spend time in the operating room and non-operative time seeing patients in the Neurosurgery Clinic. The clinic is an excellent learning opportunity where one-on-one teaching with the faculty can occur. A minimum of 30 to 40% of your time should be spent in clinic. The Chief Resident on your designated team will assign you to OR or clinic daily. The Chief Resident on your designated service is your primary contact.
2. Requirements:
A. Each student will be expected to take a total of 4 on call days per 4-week rotation -- one night on call per week (including one weekend day). You will be excused the following day after morning rounds (similar to the resident on call). Please communicate with the other M4s on service to avoid doubling up of M4s on call on any given day. However, there will also be M3s on call, and that is allowable since the M3 students will go home around 10-11pm on their call nights. Please page the on-call Neurosurgery resident at 5pm on your chosen call night. A call schedule will be included in your orientation packet.
B. Each student will be expected to turn in a total of 4 full H&Ps written about patients seen either in the clinic or during your call night. Work-up of patients should include the chief complaint, complete history of present illness, past medical history, physical examination and detailed neurological examination as well as the assessment and plan. The 4 H&Ps must be submitted to Ms. Connie McGovern (Dept Clerkship Coordinator, TC 3552, 6-5017) by the Monday following the end of the rotation in order to receive credit.
C. Each student is encouraged to pick up patients of interest and carefully follow these patients during their stay at the hospital. This includes assisting, if not writing the notes on those patients (e.g. pre-op, op and post-op notes), being responsible for knowing vital signs, laboratory results and results of any studies on these patients, reading the board for each of these patients on afternoon work rounds.
D. Each student will be responsible for a 10 minute presentation regarding an historical aspect of neurosurgery (powerpoint preferred). These talks are generally scheduled for Thursday morning at 7am on the last week of the rotation. Ideas and supplementary information for the presentation can be obtained from your mentor or any of the faculty.
E. Pagers (if visiting from another institution) and all evaluation forms must be turned to Ms. Connie McGovern (Dept Clerkship Coordinator, TC 3552, 6-5017) by the Monday following the end of the rotation. Failure to do so may result in delayed release of your grade.

3. Reading Materials:
An inclusive summary chapter on Neurosurgery from Greenfields Textbook on Surgery by Dr. Hoff will be provided, as well as a CD with information on general neurosurgical topics. If you would like additional material regarding a particular case, ask the resident or faculty involved with that case to give you a suggestion. Review the anatomy of the area you will be seeing in the OR the next day. Neurosurgeons often work through small incisions and in very dark holes. Understanding the anatomy will help you understand the case.

4. Conferences:
Students are encouraged to attend all Neurosurgical teaching conferences during their rotation. These include the following:
A. Wednesday Neurovascular Working Conference
7-8am in the IR Neuro Reading Room (Rm # B1D332)
B. Thursday Resident Teaching Conference
CPC (Clinico-pathological Correlation)
D&C (Morbidity and Mortality)
Journal Club
7-9 am in Neurosurgery Conference Room, Taubman Suite 3552
C. Friday Neuro-Oncology Working Conference
7-9 am in Neurosurgery Conference Room, Taubman Suite 3552

5. Students are welcome to use any of the textbooks in the neurosurgery staff room, they are to be used only in the staff room. They are not to leave the premises, but you may Xerox pertinent sections.

6. We want you to enjoy and learn from this rotation. If there are any questions or suggestions concerning the rotation on Neurosurgery, please contact Dr. Jason Heth(936-5017) or any of the other neurosurgical staff.

7. Medical students interested in Neurosurgery as a possible career are encouraged to make an appointment with Dr. Heth to discuss their career options. You will be assigned a mentor within the department. We want very much to assist you with your career plans.

8. Please return your pager and rotation evaluation forms to Connie McGovern (Dept Clerkship Coordinator, 6-5017) on the last day of your rotation. We ask that you sign your checklist form with your completed workups, so it can assist us in formulating a final grade for you. Please return the evaluation forms - we can't improve the rotation unless we hear from you! Evaluation forms of each faculty and resident are extremely important to us as they assist us with our development as educators.

If for any reason you need to be absent from this rotation PLEASE NOTIFY DR. HETH. Unexcused absences may result in a failing grade. The UM pager and all evaluations must be turned in at the end of the rotation.

Neurosurgery Dept. Med. Student Coordinator: Connie McGovern (734/936-5017)
Medical Student Clerkship Director: Jason Heth, MD (734/936-5017, pager #14298)
Requirements Designation: Clinical
Instructors: John F. Randolph, Jr., MD
Course Contact: John F. Randolph, Jr., MD; L4000 Women's, Box 0276; 936-7401
Site Coordinator: Mel Jones, L3601 Women's Box 0276; 615-6995
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 25-50
On-Call Responsibility: None. Voluntary attendance at weekend clinic.
Where to Report First Day of Clerkship: Center for Reproductive Medicine, Briarwood #1; 7:45 am (see the clinical fellow for intake). Contact the Clerkship Coordinator at 615-6995 one week prior to start to get a schedule and set up an intake with Dr. Randolph.

Objectives:
To Enhance Knowledge And Skills Pertaining To
- Interviewing, physical examination and other patient interactions
- Interpretation of data
- Clinical judgment
- Procedures:
  - Hysterosalpingogram
  - Sonohysterogram
  - Laparoscopy/Hysteroscopy
  - Assisted Reproductive Technologies

To Increase Student Use/Review Of The Medical Literature
As part of patient care (report to attending)
- Reading clinical endocrinology texts

To Increase Student Involvement In Conferences, Etc. By Having Students
- Present patients and/or patient data
- Participate as a member of the group
- One formal presentation during the month

Distribution of Student’s Time:

- 85 % Outpatient Clinical Care
- 10 % Conferences/Lectures/Seminars
- 5 % Inpatient Clinical Care

Course Description:
Objectives of the course are to give the student a varied and preceptor type clinical experience in Reproductive Endocrinology and Infertility. The student will have the opportunity to participate in the work-up and treatment of couples with infertility problems and of patients with other reproductive endocrinopathies. S/he will be given the opportunity to participate in various surgical procedures to become familiar with a variety of surgical principles and techniques including laparoscopy, hysteroscopy, and assisted reproductive technologies. S/he will observe both the clinical and laboratory portions of assisted reproduction.
Oncology Sub I, UMH

COURSE ID: 031858   SUBJECT: OBSTGYN   CATALOG NUMBER: 701ONCI.U

Requirements Designation: Sub I, Clinical
Instructors: R. Kevin Reynolds, M.D.
Course Contact: R. Kevin Reynolds, M.D., L4000 Women's, Box 0276, 615-3773
Site Coordinator: Mel Jones
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 80 outpatient; 15 inpatient
On-Call Responsibility: 4-6 days
Where to Report First Day of Clerkship: Gyn Oncology On-Service Fellow (Contact Clerkship Coordinator 615-6995)

Objectives:

Additional Objectives
Please refer to SubI objectives in the Subinternship section of the M4 Handbook.

Distribution of Student's Time:

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<thead>
<tr>
<th>Percentage</th>
<th>Activity</th>
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<tbody>
<tr>
<td>55%</td>
<td>Outpatient Clinical Care</td>
</tr>
<tr>
<td>40%</td>
<td>Inpatient Clinical Care</td>
</tr>
<tr>
<td>5%</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
</tbody>
</table>

Course Description:

Students on this rotation will function as interns, with an opportunity to participate in surgical procedures. Inpatient care includes patients with complex, multi-system diseases. The student will become proficient in the evaluation and examination of the female patient. She/He will become familiar with surgical principles and techniques, in addition to cancer treatment strategies. Students will also participate in the care of patients receiving radiation therapy and chemotherapy for the treatment of gynecologic malignancies.

Participants are expected to present a 10-15 minute summary of a clinical or academic topic to the service including residents, fellows and attending physicians.
Maternal Fetal Sub I, UMH

COURSE ID: 041123  SUBJECT: OBSTGYN  CATALOG NUMBER: 702MFMI.U

**Requirements Designation:** Sub I, Clinical

**Instructors:**
Mark Chames, M.D., F4835 Mott, Box 0264, 764-1406

**Course Contact:**
Mark Chames, M.D., F4835 Mott, Box 0264, 764-1406

**Site Coordinator:**
Clerkship Coordinator L4512 Women's Hospital, 615-6995

**Duration:**
4 weeks

**Grading Basis:**
Graded (H, HP, P, F)

**Avg # of Patients Seen Each Week:**
20

**On-Call Responsibility:**
Rotators will work 2 weeks on days and 2 weeks on nights

**Where to Report First Day of Clerkship:**
Please contact the OB Clerkship Coordinator L4512 Women's Hospital, 615-6995, one week prior to the start of the rotation to have all paperwork completed by the first day.

**Objectives:**

Additional Objectives

Please refer to SubI objectives in the Subinternship section of the M4 Handbook.

**Distribution of Student's Time:**
- 90% Inpatient Clinical Care
- 10% Conferences/Lectures/Seminars

**Course Description:**

The student will function as a subintern on the inpatient obstetrical service, focusing on the inpatient care of high-risk antepartum and postpartum patients. This rotation is directed toward the care of women with complicated pregnancies, including women undergoing therapeutic fetal procedures, and the student will care for these patients as well. Although not a primary goal of the rotation, it is most students have the opportunity to care for and manage patients a limited number of patients with normal and abnormal labor.

The student is expected to work two weeks with the "day" obstetrical team, and two week with the "night" team over the course of the month. The student's final evaluation will be based on faculty and housestaff evaluation of participation, skills, fund of knowledge, and attitude.
Ophthalmology - UMH

E: Ophthalmology, Clinical, UMH

COURSE ID: 031873   SUBJECT: OPPTH   CATALOG NUMBER: 001CLNO.U

Requirements Designation: Clinical
Instructors: Dr. Ariane Kaplan
Course Contact: Lauren Gagneau 734-763-4088 lgagneau@med.umich.edu and Kathy Whitney 734-764-5208 kwhitney@umich.edu
Site Coordinator: Lauren Gagneau 734-763-4088 lgagneau@med.umich.edu and Kathy Whitney 734-764-5208 kwhitney@umich.edu
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: up to 50
On-Call Responsibility: Not a requirement.
Where to Report First Day of Clerkship: Informational email will be sent to enrolled students.

Objectives:

To Enhance Knowledge And Skills Pertaining To
Interviewing, physical examination and other patient interactions.
Interpretation of data.
Clinical judgment.
Therapy and advice to patients.

To Increase Student Use/Review Of The Medical Literature
As part of patient care (report to attending).
As part of a conference or journal club.

To Increase Student Involvement In Conferences, Etc. By Having Students
Present patients and/or patient data.
Participate as a member of the audience.

Distribution of Student's Time:

65 % Outpatient Clinical Care
25 % Inpatient Clinical Care
10 % Conferences/Lectures/Seminars

Course Description:

Students selecting this elective comprise two groups. Those seriously interested in pursuing a career in ophthalmology should plan to take the rotation in Periods 3-4 (July, or August). The focus of the Period 3-4 rotations are to expose the student to the aspects of ophthalmology that are most useful for exploring a career in the field. Clinical time is split among a variety of clinics at the Kellogg Eye Center (KEC), and the consult service within the Main hospital, encompassing care for both inpatients and outpatients. Students may also arrange to spend time within subspecialty services at KEC, which can be arranged through the clerkship coordinator. Students will learn to take an ophthalmic history, learn basic ophthalmic terminology, and examination techniques. Exposure to ophthalmic surgery is provided at the KEC as well as an optional wet lab experience. A typical day begins at 7:00am with student-directed lectures on most days, and clinics generally run until 5:00 pm. Students may also attend resident lectures between 5:30 and 7:30 pm several nights per week if interested. Students in Periods 3-4 are required to prepare a presentation given to the clerkship director and other students at the end of the rotation. Self study time may be provided when appropriate.

Students who are interested in learning more about ophthalmology, but are NOT interested in pursuing the field as a career, are welcome to take the rotation during Periods 5-12. Taking the elective during Periods 3-4 will only be considered through special permission of the clerkship director. The primary goal of the non-career-oriented rotation is for the student to gain recognition of common eye conditions with an emphasis on differentiating which conditions can be treated by a primary care physician, and which should be referred for evaluation by an ophthalmologist. This course typically involves daily lectures and time in the clinic each day. Self-study time is provided each week. Observational experience in the operating room is provided to gain familiarity with common ophthalmic surgical procedures. A typical day begins at 7:00am and runs generally until around 5:00 pm. For students enrolled in periods 5-12, the end-of-rotation presentation is optional, but required if the student intents to pursue an honors grade.
Orthopaedic Surgery - UMH

E:Surgery, Orthopedic, UMH

COURSE ID: 032592  SUBJECT: ORTHSURG  CATALOG NUMBER: 001ORTO.U

Requirements Designation: Clinical
Instructors: Orthopaedic Faculty
Course Contact: Dr. Clifford Craig; 2918F Taubman Center; 615-3599
Site Coordinator: Dr. Clifford Craig; 2918F Taubman Center; 615-3599
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 40
On-Call Responsibility: None
Where to Report First Day of Clerkship: Orthopaedic Library Taubman Center Section C Rm. TC 2917, 7:00 a.m.

Objectives:
To Enhance Knowledge And Skills Pertaining To
Interviewing, physical examination and other patient interactions.
Clinical judgment.
Procedures:
Casting, Splinting.
Therapy and advice to patients.

To Increase Student Use/Review Of The Medical Literature
As part of a conference or journal club.

To Increase Student Involvement In Conferences, Etc. By Having Students
Present patients and/or patient data.
Participate as a member of the audience.

Additional Objectives
Musculoskeletal examination.

Distribution of Student's Time:
90 % Outpatient Clinical Care
10 % Conferences/Lectures/Seminars

Course Description:
This rotation is an outpatient experience for individuals who don't need/want the operative orthopedic experience, especially students who are interested in Primary Care/Emergency Medicine/Pediatrics/Internal Medicine/Family Practice/Family Medicine. Students can spend time in specialty outpatient clinics including sports medicine, orthopaedic oncology, arthritis, hand, trauma, spine, foot and ankle, and pediatrics. Additionally, opportunities exist for outpatient experience in relevant physical medicine clinics (e.g. spine clinic) and a multidisciplinary musculoskeletal clinic (faculty from PM&R, rheumatology, and orthopedics). Exposure to musculoskeletal radiology is also available. The rotation is intentionally flexible to meet the interests/goals of each student.
Orthopaedic Surgery - UMH

E:Surgery, Orthopedic, UMH

COURSE ID: 032597                  SUBJECT: ORTHSURG                  CATALOG NUMBER: 001ORTP.U

Requirements Designation: Clinical
Instructors: Dr. Clifford Craig
Course Contact: Dr. Clifford Craig, 2918F Taubman, Box 0328, 615-3599
Site Coordinator: Dr. Clifford Craig, 2918F Taubman, Box 0328, 615-3599
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 30
On-Call Responsibility: Variable
Where to Report First Day of Clerkship: Dr. Craig's Office 2918f Taubman Center; 6:15 a.m.

Objectives:

To Enhance Knowledge And Skills Pertaining To
Interviewing, physical examination and other patient interactions
Clinical judgment.
Procedures:
Fracture Management.
Casting, Splinting.
Operative Techniques.

To Increase Student Use/Review Of The Medical Literature
As part of a conference or journal club

To Increase Student Involvement In Conferences, Etc. By Having Students
Present patients and/or patient data

Distribution of Student's Time:

50 % Inpatient Clinical Care
40 % Outpatient Clinical Care
10 % Conferences/Lectures/Seminars

Course Description:

Students will be assigned to patient care teams for inpatient and outpatient experiences, and will participate in patient care duties and operative procedures. Experiences are available in trauma, foot and ankle surgery, adult reconstruction (spine and joint replacement), pediatric orthopaedics, hand, oncology, and sports. Students will be assigned for two weeks to one of the services at the University Hospital or the Pediatric Orthopaedic Service at Mott Hospital, and rotate to a second service for two weeks. Assignments will take place on the first day of the service and every effort will be made to accommodate each individual's requests.
Otorhinolaryngology - UMH

Head, Neck Surgery, UMH

COURSE ID: 042894 SUBJECT: OTO CATALOG NUMBER: 701OTOP.U

Requirements Designation: Sub I, Clinical
Course Contact: Jeffrey S. Moyer, MD, FACS
Site Coordinator: Jacob West
Duration: 4 Weeks
Grading Basis: Graded (H, HP, P, F)
On-Call Responsibility: Required to take call twice during the rotation with a resident
Where to Report First Day of Clerkship: You will be contacted by the Clerkship Coordinator, Jacob West, 1 week prior to your rotation with a schedule and instructions. Questions and/or concerns should be directed to wejacob@med.umich.edu or 734-232-9408.

Objectives:

Additional Objectives
Please refer to SubI objectives in the Subinternship section of the M4 Handbook.

Distribution of Student's Time:

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<tr>
<td>60 %</td>
<td>Inpatient Clinical Care</td>
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<tr>
<td>20 %</td>
<td>Outpatient Clinical Care</td>
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<td>Conferences/Lectures/Seminars</td>
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<td>10 %</td>
<td>Independent Study</td>
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Course Description:

The subinternship in Otolaryngology-Head and Neck Surgery has been designed for those students who want a more in-depth experience to prepare themselves for residency. Specifically, the rotation will offer the opportunity to concentrate in a particular subspecialty (Head and Neck Surgery, Pediatric Otolaryngology, Facial Plastic and Reconstructive Surgery, Laryngology, Rhinology/Sinus Surgery, Anterior Skull Base Surgery, Otology/Neurotology) for the entire rotation. The student will be expected to take call with the resident throughout the rotation to gain experience in the management of common emergencies. It is our feeling that this intensive experience will offer students interested in Otolaryngology an in-depth experience that the clinical elective does not currently offer. In addition to those students preparing for a career in Otolaryngology-Head and Neck Surgery, this immersion might also be useful for future dermatologists (a whole month with facial plastics and reconstructive surgery), neurosurgeons (a whole month with our skull base team), pediatricians/family practice (a whole month with Peds faculty), and general surgeons (head and neck surgery and endocrine surgery). An experience at the Ann Arbor VA is also possible.
E:Pathology, General, UMH

COURSE ID: 032312  SUBJECT: PATH  CATALOG NUMBER: 001CLNL.U

Requirements Designation: Clinical
Instructors: Andrew Sciallis, M.D. and Department of Pathology Faculty
Course Contact: Desire' Baessler, Pathology Education Office: M4232 Med Sci I, 1301 Catherine; dbaessle@umich.edu
Site Coordinator: Desire' Baessler, Pathology Education Office: M4232 Med Sci I, 1301 Catherine; dbaessle@umich.edu
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
On-Call Responsibility: No Call
Where to Report First Day of Clerkship: 9:00 a.m. in M5240E Med Sci I, 1301 Catherine; contact Desire' Baessler for more information at dbaessle@umich.edu.

Objectives:

Educational Goals And Objectives
A. To increase student's understanding of the contemporary practice of Pathology and the role of Anatomic Pathology and Laboratory Medicine in the care of patients and clinical decision making.
B. To enhance student's ability to integrate morphologic characteristics of human disease and clinical laboratory data in clinical decision making in the care of patients
C. To enhance student's understanding of the role of the pathologist as an integral member of the healthcare team

Distribution of Student's Time:
45 % Inpatient Clinical Care
45 % Outpatient Clinical Care
10 % Conferences/Lectures/Seminars

Course Description:
This clerkship is intended to acquaint medical students with the practice of anatomic pathology and laboratory medicine at an academic institution, and to explore the relationship between pathology and clinical specialties. Activities and schedules are determined based on the students sub-specialty interest(s), and may include time in the following pathologies laboratories/services: surgical pathology (e.g. genitourinary, gynecologic, head and neck, general pathology services), transfusion medicine, hematopathology, dermatopathology, informatics, molecular pathology, cytopathology, and clinical chemistry.
Pathology - UMH

E: Sub-Specialty, UMH

COURSE ID: 032328 SUBJECT: PATH CATALOG NUMBER: 001GENL.U

Requirements Designation: Clinical
Instructors: Andrew Sciallis, M.D. and Department of Pathology Faculty
Course Contact: Desire Baessler, Pathology Education Office: M4232 Med Sci I, 1301 Catherine; dbaessle@umich.edu
Site Coordinator: Desire Baessler, Pathology Education Office: M4232 Med Sci I, 1301 Catherine; dbaessle@umich.edu
Duration: 4 Weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: Varies depending on sub-specialty area
On-Call Responsibility: No Call
Where to Report First Day of Clerkship: 9:00 a.m. in M5240E Med Sci I, 1301 Catherine; contact Desire Baessler for more information at dbaessle@umich.edu.

Objectives:

Educational Goals And Objectives
A. To increase student's understanding of the contemporary practice of Pathology and the role of Anatomic Pathology and Laboratory Medicine in the care of patients and clinical decision making in a sub-specialty area of pathology.

B. To enhance student's ability to integrate morphologic characteristics of human disease and clinical laboratory data in clinical decision making in the care of patients

C. To enhance student's understanding of the role of the pathologist as an integral member of the healthcare team

Distribution of Student's Time:

45 % Inpatient Clinical Care
45 % Outpatient Clinical Care
10 % Conferences/Lectures/Seminars

Course Description:

This clerkship is intended to acquaint medical students with the practice of anatomic pathology and laboratory medicine at an academic institution, and to explore the relationship between pathology and clinical specialties. Activities and schedules are determined based on the students sub-specialty interest(s), and may include time in the following pathologies laboratories/services: surgical pathology (e.g. genitourinary, gynecologic, head and neck, general pathology services), transfusion medicine, hematopathology, dermatopathology, informatics, molecular pathology, cytopathology, and clinical chemistry.
E:Pediatrics, Cardiology, UMH

COURSE ID: 031973 SUBJECT: PEDIAT CATALOG NUMBER: 001CARI.U

Requirements Designation: Clinical
Instructors: Pediatric Cardiology Faculty
Course Contact: Sonal Owens, M.D. ; 734-615-2369
Site Coordinator: Sonal Owens, M.D.
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: Approximately 30-50 per student per week
On-Call Responsibility: No Call
Where to Report First Day of Clerkship: Contact Dr. Sonal Owens by email at sthakkar@med.umich.edu the week prior to the start of the elective to arrange the date and time for an orientation.

Objectives:

To Enhance Knowledge And Skills Pertaining To
Interview and physical examination of children with known or suspected congenital heart disease.
Interpretation of clinical data from history, exam and additional studies.
Creation of care plan using acquired clinical data.
Discussion of care plan and clinical recommendations with patient and family.

Procedures:
Observation of cardiac catheterization, echocardiography, cardiac surgery.

To Increase Student Involvement In Conferences, Etc. By Having Students
Present patients and/or data.
Participate as a member of the audience.

Distribution of Student's Time:

80 % Outpatient Clinical Care
15 % Conferences/Lectures/Seminars
5 % Independent Study

Course Description:
The M4 will see patients in outpatient cardiology clinic at least 5 half-days per week evaluating children with cardiovascular disease. He/she will attend pediatric arrhythmia clinic and pediatric prevention clinic at least twice during the month. He/she may participate in the consultation service of inpatients, but this is not a requirement. The M4 will see/evaluate preoperative/pre-catheterization patients. He/she will observe cardiac catheterizations, electrophysiology cases, echocardiograms, cardiac MRI, and pediatric cardiac surgeries. He/she will attend all divisional conferences and Pediatric Grand Rounds.

Outcome Based Learning Objectives:

1. Describe the characteristics of an innocent/benign murmur and contrast them with the characteristics of a pathologic murmur
2. Distinguish an innocent murmur from a pathologic murmur on physical examination
3. Distinguish a systolic murmur from a diastolic murmur
4. Contrast a normal ECG with an abnormal ECG
5. Identify the signs and symptoms of congestive heart failure in an infant
Pediatrics, Developmental, UMH

COURSE ID: 032751  SUBJECT: PEDIAT  CATALOG NUMBER: 001DEVO.U

Requirements Designation: Clinical
Instructors: Prachi Shah, M.D., Julie Lumeng, M.D., Barbara Felt, M.D.;
Course Contact: Prachi Shah, M.D.; prachis@umich.edu
Site Coordinator: Prachi Shah, M.D.
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 15-20
On-Call Responsibility: No call
Where to Report First Day of Clerkship: Student will receive an email with the schedule from Dr. Prachi Shah (prachis@umich.edu) about 1 week prior to the start of the clerkship; this schedule will show where to report on the first day. Usually 8 am.

Objectives:

To Enhance Knowledge And Skills Pertaining To
Interviewing, physical examination and other patient interactions.
Interpretation of data.
Clinical judgment.

Distribution of Student's Time:

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<th>Percentage</th>
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<tbody>
<tr>
<td>70 %</td>
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<tr>
<td>25 %</td>
<td>Independent Study</td>
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<td>5 %</td>
<td>Conferences/Lectures/Seminars</td>
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Course Description:

This elective will offer the student exposure to common developmental and behavioral problems of children, including school function problems (learning disabilities, ADHD, oppositional behavior), developmental disabilities, autism, enuresis, encopresis, and others. The student will learn the standard of care in diagnosis and treatment of developmental and behavioral disorders. Students will gain a better understanding of the role of the community and schools in supporting child development. Students will learn how a developmental and behavioral focus can be incorporated into the delivery of primary care pediatrics.

Outcome Based Learning Objectives Include:

1. To know and be able to recognize during a behavioral consultation signs and symptoms of autistic spectrum disorder.
2. To know and understand how to practically apply practice guidelines for ADHD evaluation and treatment.
3. To be able to use a developmental screening tool to screen development and identify developmental delay.
4. To be able to explain the special education system in the community to a patients family and the familys rights within that system.
5. To understand how to deliver the news of the diagnosis of a developmental/behavioral disorder.
E:Pediatrics, Gastroenterology, UMH

COURSE ID: 032034  SUBJECT: PEDIAT  CATALOG NUMBER: 001GI-P.U

Requirements Designation: Clinical
Instructors: Dr. Neef, Dr. Brown, Dr. Lopez, Dr. Dickinson, Dr. Adler, Dr. Dipaola, Dr. Mar, Dr. Lee, Dr. Bilhartz, Dr. Dickinson, Dr. Zacur
Course Contact: Dr. Haley Neef; D5200 Medical Professional Bldg, Box 0718; 763-9650
Site Coordinator: Ms. Diane Nicholls
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 20
On-Call Responsibility: No call
Where to Report First Day of Clerkship: Pediatric GI Office, D5200 Medical Professional Bldg.; 8:30 a.m.

Objectives:

To Enhance Knowledge And Skills Pertaining To
Interviewing, physical examination and other patient interactions.
Interpretation of data.
Clinical judgment.
Procedures (for observation only).
Therapy and advice to patients.

To Increase Student Use/Review Of The Medical Literature
As part of patient care (report to attending).

To Increase Student Involvement In Conferences, Etc. By Having Students
Present patients and/or patient data.
Participate as a member of the audience.

Distribution of Student's Time:

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<td>Conferences/Lectures/Seminars</td>
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<td>5%</td>
<td>Inpatient Clinical Care</td>
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Course Description:

This is primarily an outpatient elective. The main complaints seen are common General Pediatric problems such as failure-to-thrive, chronic diarrhea, abdominal pain, gastroesophageal reflux, and constipation. The student will also learn pathophysiology and management of common gastrointestinal illnesses such as inflammatory bowel disease, celiac disease, and chronic liver disease. There will also be the opportunity to attend the multidisciplinary clinics in the division: Children's Intestinal Rehabilitation Clinic and Pediatric Liver Transplant clinic. The student is also encouraged to view procedures, particularly on patients they have seen in clinic. Conferences include weekly divisional teaching(fellow) conferences, pathology conference twice a month, and radiology conference once a month.

OBJECTIVES:
1) Identify normal growth patterns and understand how to interpret deviation from the curve
2) Understand how to estimate calorie and protein requirements in children of various ages.
3) Know the differential diagnosis of chronic diarrhea; understand when it is appropriate to perform further evaluation.
4) Describe the differential diagnosis of acute and chronic abdominal pain and know when to pursue further evaluation.
5) In constipated children, understand when it is appropriate to evaluate for underlying disease.
Objectives:

To Enhance Knowledge And Skills Pertaining To
- Interviewing, physical examination and other patient interactions.
- Interpretation of data.
- Clinical judgment.
- Genetic counseling.
- Therapy and advice to patients.

To Increase Student Use/Review Of The Medical Literature
- As part of patient care (report to attending).
- As part of conference or journal club.

To Increase Student Involvement In Conferences, Etc. By Having Students
- Present patients and/or patient data.
- Participate as a member of the audience.

Additional Objectives
- Appreciate cultural diversity and human variability as a component of clinical decisions.

Distribution of Student's Time:

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<td>50%</td>
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<td>Conferences/Lectures/Seminars</td>
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<td>5%</td>
<td>Laboratory tours</td>
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Course Description:

Our goal is to provide an intensive experience in medical genetics with an emphasis selected by the student. Clinical activities can include evaluation of patients with chromosomal, syndromal, or metabolic disease and, during some periods, visits to satellite genetics clinics in Northern Michigan. Laboratory activities will include metabolic screening, and an introduction to clinical molecular genetic laboratory testing.

Objectives include 1) Understand the role of the pediatrician in preventing, counseling, and screening individuals at risk for genetic disorders; 2) Obtain and correctly interpret a pedigree; 3) Develop a diagnostic plan for the evaluation of a child with developmental delay and/or mental retardation; 4) Become familiar with and use genetic databases (i.e., Online Mendelian Inheritance of Man, and Genetests); 5) Recognize and interpret major and minor physical dysmorphisms; 6) Become familiar with basic principles of inpatient and outpatient management for patients with known inborn errors of metabolism.
Immuno-Hematology, UMH

COURSE ID: 045755  SUBJECT: PEDIAT  CATALOG NUMBER: 1IMHO.U

Requirements Designation: Clinical
Instructors: Immuno-Hematology Comprehensive Program Faculty
Course Contact: Kelly Walkovich, MD
Site Coordinator: Kelly Walkovich, MD
Duration: 4 Weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 30
On-Call Responsibility: No Call
Where to Report First Day of Clerkship: Ped Heme/Onc Office, Med Professional Bldg 4th Floor - 9:00 AM.

Keywords: immunology, hematology, immuno-hematology, immunodeficiency, lymphoproliferative disorders, bone marrow failure syndromes, aplastic anemia, neutrophil disorders, comprehensive care, infectious disease, genetics, bone marrow transplant

Objectives:

To Enhance Knowledge And Skills Pertaining To
Interviewing, physical examination and other patient interactions
Interpretation of data
Clinical judgment
Procedures: Observation of lumbar puncture, bone marrow aspirate/biopsy, stem cell harvest, stem cell infusion
Therapy and advice to patient

Learning Objectives

The Immuno-Hematology Comprehensive Program medical student elective is primarily an outpatient clinical patient care elective supplemented by key inpatient and core curriculum activities in the areas of immunodeficiency, lymphoproliferative disorders, neutrophil disorders and bone marrow failure syndromes. Students will have the opportunity to engage in direct patient care through a unique multi-disciplinary care module, involving Pediatric Hematology/Oncology, Pediatric Infectious Disease, Medical Genetics, Allergy/Immunology, Pediatric Rheumatology and Pediatric Bone Marrow Transplant, for rare and complex disease. Students will also be offered the opportunity to participate in other related outpatient clinics, be an active member of patient-case conferences and round on the inpatient Pediatric Bone Marrow Transplant services and/or inpatient Pediatric Infectious Disease consult service.

1. Students should be able to interpret standard immunologic/hematology assays, e.g. complete blood count and differential, quantitative immunoglobulins, T- and B-cell subsets, TREC enumeration as well as functional assays, and describe anticipated deficiencies in the immune system based on laboratory testing.
2. Students should be able to describe the evaluation of an infant with an abnormal TREC assay newborn screen.
3. Students should be able to identify risk factors for opportunistic infections and articulate strategies for infectious prophylaxis/prevention. Students should be able to recognize the clinical presentation of opportunistic infections in immunocompromised hosts and their implications for defects in immunologic processes.
4. Students should be able to articulate the definition of aplastic anemia, describe the initial evaluation and management of patients with aplastic anemia and recognize features associated with bone marrow failure syndromes. Students should specifically recognize features associated with paroxysmal nocturnal hemoglobinuria (PNH), Diamond-Blackfan anemia, congenital amegakaryocytic thrombocytopenia, Fanconi anemia and dyskeratosis congenital (DKC).
5. Students should be able to distinguish malignant lymphoproliferation from non-malignant lymphoproliferation and understand the clinical features/laboratory testing that is useful in discriminating the two entities. Students should specifically recognize features associated with hemophagocytic lymphohistiocytosis (HLH), x-linked lymphoproliferative disease (XLP), and autoimmune lymphoproliferative syndrome (ALPS).
6. Students should be able to articulate the definition of neutropenia, describe the evaluation of patients with neutropenia (including key elements of the history, physical exam and laboratory evaluation), and know the clinical features associated with specific neutropenia-related syndromes, e.g. autoimmune neutropenia of infancy, severe congenital neutropenia, cyclic neutropenia, Shwachman-Diamond syndromes and idiopathic neutropenia.
7. Students should be able to list the key factors to consider for the selection on bone marrow transplant donors, describe the differences between full intensity and reduced-intensity transplant conditioning regimens, recognize the risk of alkylating agents in certain immuno-hematologic disorders, and describe the anticipated infectious complications of bone marrow transplant.
8. Students should be able to perform a formal evaluation for inheritable causes of immune deficiencies, lymphoproliferative diseases, bone marrow failure, and neutropenia. This evaluation includes collecting a thorough family history and formulating appropriate hypotheses regarding inheritance patterns. Students should also be able to recognize common inherited disorders in immunologic and hematologic diseases.
**Distribution of Student’s Time:**

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<td>Conferences/Lectures/Seminars</td>
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<tr>
<td>10 %</td>
<td>Independent Study</td>
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</table>
Objectives:

To Enhance Knowledge And Skills Pertaining To

Interviewing, physical examination and other patient interactions.
Interpretation of data.
Clinical judgment.
Therapy and advice to patients.
Gain familiarity with common nephrologic disorders.

To Increase Student Use/Review Of The Medical Literature

As part of patient care (report to attending).

To Increase Student Involvement In Conferences, Etc. By Having Students

Present patients and/or patient data.
Participate as a member of the audience.
Give a clinical talk or journal club presentation to Division Faculty.

Additional Objectives

Experience in the long term care of pediatrics chronic illness.

Distribution of Student's Time:

50 % Inpatient Clinical Care
45 % Outpatient Clinical Care
5 % Conferences/Lectures/Seminars

Course Description:

This is an inpatient and outpatient experience in Pediatric Nephrology. The mix of time (inpatient vs outpatient) can be adjusted to meet the students needs/interests. During this rotation, the student will gain exposure to general nephrology, dialysis, renal transplantation, hypertension and Intensive Care Nephrology. On the inpatient service, students will be expected to follow 1-2 patients at a time. On the outpatient service, students will observe attendings/fellows as well as see patients on their own and present to the attending.

At the end of the rotation, the student is expected to present a short (10-15 minute) presentation at a Friday Pediatric Nephrology Division Conference. Typically, this is a review of a clinical/basic science paper or review of a general nephrology topic that relates to a patient/problem that the student saw during the elective.

Learning Objectives:

Inpatient:
1.)The student should become familiar with the acute indications for dialysis.
2.)The student should become familiar with the differential diagnosis and evaluation for acute kidney injury.
3.)The student will learn about the role of nephrology consulting service in the intensive care units and on the general care floors.

Outpatient:
1.)The student will be expected to know how to measure a blood pressure and know the difference between normal and abnormal blood pressure values in children.
2.)The student should become familiar with the differential diagnosis and evaluation of hypertension in the pediatric population.
3.)The student will be expected to know how to spin down urine and examine it under a microscope. They should understand how to interpret the results of a urinalysis.
4.) The student will become familiar with the initial evaluation for hematuria and proteinuria.
E:Pediatrics, Neurology, UMH

COURSE ID: 032112  SUBJECT: PEDIAT  CATALOG NUMBER: 001NEUP.U

Requirements Designation: Clinical
Instructors: Pediatric Neurology Faculty
Course Contact: Renee Shellhaas; 12th floor Mott Hospital; 1540 E. Hospital Dr, Ann Arbor, MI, 48109-4729; 936-4179
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 20
On-Call Responsibility: None.
Where to Report First Day of Clerkship: Contact Dr. Shellhaas (shellhaa@umich.edu) one week prior to the start of the elective, to arrange meeting place and time.

Objectives:

To Enhance Knowledge And Skills Pertaining To
Interviewing, physical examination and other patient interactions.
Interpretation of data and formulation of differential diagnosis.
Clinical judgment.
Therapy and advice to patients and their families.

To Increase Student Use/Review Of The Medical Literature
Presentation of a formal didactic conference to residents and faculty.

Distribution of Student's Time:

80 % Outpatient Clinical Care
10 % Conferences/Lectures/Seminars
10 % Inpatient Clinical Care

Course Description:
This rotation is outpatient-based. The student will be placed in a number of different general and sub-specialized pediatric neurology clinics (e.g. autism, headache, movement disorders, neuromuscular, neuro-oncology, NICU follow-up, and refractory epilepsy). Occasionally, students will have an opportunity to round with the inpatient pediatric neurology consult team. Students also participate in the divisions regularly scheduled conferences (including case review conference, neuroradiology, journal club, neonatal neurology, and morbidity & mortality), as well as attending adult neurology grand rounds. Each student will choose a topic in pediatric neurology and prepare a 15-minute presentation to give to the faculty in the 3rd or 4th week of the rotation.

Goals & Objectives for the M4 Elective in Pediatric Neurology
During this elective, the student is expected to:
1) Become proficient in taking an appropriate history for children with neurologic disorders, such as seizures and suspected seizures, headache, developmental delay, tics, brain tumors, and neuromuscular diseases.
2) Improve their skills in neurological examinations for infants and children.
3) Enhance their depth and breadth of knowledge related to pediatric neurology, as demonstrated by formulation of assessments and plans for patients seen in clinic.
4) Demonstrate professional communication skills, through oral presentations of patients histories and examinations, written summaries of clinic visits, and a formal presentation on a pediatric neurology topic of the students choice.
E:Pediatrics, Pulmonary, UMH

COURSE ID: 032124       SUBJECT: PEDIAT       CATALOG NUMBER: 001PULO.U

Requirements Designation: Clinical
Instructors: Pediatric Pulmonary Attendings
Course Contact: On Call Pediatric Pulmonologists and fellows
Site Coordinator: Cheryl Evans
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 100
On-Call Responsibility: No call

Where to Report First Day of Clerkship: Thomas Saba's office; L2221 Women's; 8:00 a.m.

Objectives:

   To Enhance Knowledge And Skills Pertaining To
   Interviewing, physical examination and other patient interactions.
   Interpretation of data.
   Clinical judgment.
   Procedures:
      Bronchoscopy.
      Pulmonary Function Testing
      Multichannel Sleep Studies
   Therapy and advice to children with respiratory disorders, especially asthma and cystic fibrosis.

To Increase Student Use/Review Of The Medical Literature
As part of patient care (report to attending).
As part of a conference or journal club.

To Increase Student Involvement In Conferences, Etc. By Having Students
Present patients and/or patient data.
Participate as a member of the audience.
Present Journal Club/Talk

Distribution of Student's Time:

   35 %  Inpatient Clinical Care
   35 %  Outpatient Clinical Care
   10 %  Conferences/Lectures/Seminars
   10 %  Independent Study
   10 %  Service Learning

Course Description:

The student will have the opportunity to see children with respiratory system diseases (e.g., asthma, cystic fibrosis, apnea) and observe diagnostic and therapeutic approaches. There is particular emphasis on establishing a partnership between physicians and families.
Pediatric Camp, UMH

COURSE ID: 032017  SUBJECT: PEDIAT  CATALOG NUMBER: 002GENO.U

Requirements Designation: Clinical

Instructors: Aarti Raheja, M.D., Amy Hepper, M.D.

Course Contact: Aarti Raheja, M.D. (aartir@umich.edu), Amy Hepper, M.D. (ahepper@umich.edu)

Site Coordinator: Aarti Raheja, M.D.

Duration: 4 Weeks

Grading Basis: Satisfactory/Fail

On-Call Responsibility: No call

Where to Report First Day of Clerkship: Contact Dr. Aarti Raheja at aartir@umich.edu or Dr. Amy Hepper at ahepper@umich.edu prior to beginning of rotation.

Objectives:
To Enhance Knowledge And Skills Pertaining To
Interviewing, physical examination and other patient interactions.
Clinical judgment
Therapy and advice to patients

Distribution of Student's Time: 100% Students spend the rotation at camp caring for children

Course Description:
Prior to camp, students will receive a practical medical orientation to learn about camp medicine, child development and behavior, bleeding disorders, HIV/AIDS, working with and teaching children, and issues of chronic disease in children.

They will then spend 3 weeks at a camp for children with bleeding disorders, who range in age from 6 to 13 years old. While working as cabin counselors, educators and role models for campers and younger counselors, students will gain unique perspectives on children, chronic diseases, resilience, and personal growth. Medical students will spend 1-2 scheduled days in the health center and whenever their campers need medical attention. The rest of the time will be spent as a counselor for the campers.

Camp Bold Eagle is located near Muskegon, Michigan. Students will be staying at camp in cabins during the rotation. For more information please see the Hemophilia Foundation website at www.hfmich.org

During the final week, students will prepare and give a short presentation to the group on a topic related to camp.

Please contact Dr. Aarti Raheja at aartir@umich.edu or Dr. Amy Hepper at ahepper@med.umich.edu prior to camp for if you have any questions.
Peds Hematology, Oncology, UMH

COURSE ID: 042447  SUBJECT: PEDIAT  CATALOG NUMBER: 2HEMO.U

Requirements Designation: Clinical

Instructors: Pediatric Hematology/Oncology Faculty
Course Contact: Rama Jasty, M.D.; rjasty@med.umich.edu
Site Coordinator: Rama Jasty, M.D.
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)

Avg # of Patients Seen Each Week: 20
On-Call Responsibility: No call
Where to Report First Day of Clerkship: 7th floor Mott, Peds Heme/Onc clinic Time: 8:30 am

Objectives:

To Enhance Knowledge And Skills Pertaining To
- Interviewing, physical examination and other patient interactions
- Interpretation of data
- Clinical judgment
- Therapy and advice to patients

Distribution of Student's Time:

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<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
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<tbody>
<tr>
<td>80%</td>
<td>Inpatient Clinical Care</td>
</tr>
<tr>
<td>10%</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
<tr>
<td>10%</td>
<td>Independent Study</td>
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</table>

Course Description:

Peds Hematology/Oncology: During the PHO elective, students will have the opportunity to participate in the inpatient care of children with cancer and hematologic problems. The elective offers intensive inpatient PHO experience and allows the students to recognize the common presenting symptoms of various pediatric hematology and oncology new diagnoses. The students will have an opportunity to learn the common side effects related to pediatric cancer therapy, various supportive care managements including management of infections, cytopenias, pain. This elective offers the students a chance experience the psychosocial aspects of chronic illness. Students will also be involved in the care of various chronic hematologic conditions such as sickle cell diseases and hemophilia etc. Students will also get competence in the review of blood and bone marrow morphology by reviewing the smears.

1. Patient care: Students will increase their knowledge content and will develop competence in evaluating, assessing, diagnosing and managing common outpatient heme-onc health issues including evaluation of common conditions like anemia, child presenting with easy bruising or bleeding, patients presenting with different red cell abnormalities, immunodeficiencies, etc.
2. Medical Knowledge: Students will learn about common blood disorders and cancers in pediatric patients and side effects of common chemotherapeutic agents. Will participate in the conferences where they get a chance to observe the presentations of complex pediatric heme/onc patients and management issues. Special focus; Division specific competency: Normal vs. Abnormal Hematologic Parameters. Understand how to determine the difference between normal and pathologic states related to the hematologic and lymphatic systems as reflected in the CBC, blood smear and bone marrow.
   * Interpret CBC findings consistent with abnormalities in RBC, WBC and PLT lineages
   * Identify the changes that occur over time in the hematologic indices in the developing child (e.g. WBC, differential count, hemoglobin, hematocrit, MCV, etc.)
3. Interpersonal and Communication Skills
   * Provide effective patient education including reassurance for a condition(s) common to hematology/oncology.
   * Communicate effectively with primary care and other physicians, other health professionals, and health related agencies to create and sustain information exchange and team work for patient care.
4. Psychosocial/Ethical Issues
   * Demonstrate awareness of the unique problems involved in care of patients with cancer, and serve as an advocate for these patients
   * Listen carefully to concerns of families and provide appropriate information and support

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Objectives:

To Enhance Knowledge And Skills Pertaining To

- Interviewing, physical examination and other patient interactions
- interpretation of data
- clinical judgment
- therapy and advice to patients

To Increase Student Use/Review Of The Medical Literature

- as part of patient care (report to attending)
- as part of a conference or journal club

To Increase Student Involvement In Conferences, Etc. By Having Students

- present patients and/or patient data
- participate as a member of the audience

Distribution of Student's Time:

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<th>Percentage</th>
<th>Description</th>
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<tbody>
<tr>
<td>50%</td>
<td>Inpatient Clinical Care</td>
</tr>
<tr>
<td>20%</td>
<td>Independent Study</td>
</tr>
<tr>
<td>20%</td>
<td>Outpatient Clinical Care</td>
</tr>
<tr>
<td>10%</td>
<td>Conferences/Lectures/Seminars</td>
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</table>

Course Description:

A. OBJECTIVES

The Pediatric Infectious Diseases Rotation at the University of Michigan Medical Center is designed to insure that upon completion of the rotation, the trainees will be able to-

1. Demonstrate acquisition of information and experience necessary to diagnosis and manage pediatric patients with a wide variety of acute and chronic infectious diseases including disorders of host defenses.
2. Develop an understanding of the principles of disease control, prevention of nosocomial infections, and immunization programs.
3. Demonstrate the ability to utilize the literature and understand the application of clinical research with respect to the care of infectious disease patients.
4. Demonstrate knowledge of the functions and appropriate utilization of diagnostic microbiology, immunology, virology, mycology, and parasitology laboratories.
5. Demonstrate acquisition of appropriate teaching skills that can be used in the area of pediatric infectious diseases.

B. CURRICULAR OVERVIEW

Clinical Training To adequately complete the clinical component of this rotation, residents and students will devote the month "on-service" caring for inpatients on the Pediatric Infectious Diseases Service and inpatients seen on the Pediatric Infectious Diseases Consultation Service. In addition, they will spend one half-day per week seeing patients in the Pediatric Infectious Diseases Outpatient Clinic. The clinical objectives of this curriculum will be met through the resident's participation in-

1. Inpatient experiences: Each Pediatric Infectious Diseases students spends one month on the Inpatient Pediatric Infectious Diseases Service and Pediatric Infectious Diseases Consulting Service at Mott Children's Hospital, during which time they are supervised by the fellow and the faculty member responsible for the Inpatient Clinical Services. The Infectious Disease team (students, residents, fellows, and faculty) round with the Consulting Pediatric Service Teams one to three hours either in the morning or the afternoon depending on the day of the week, the individual attending and the volume of the service. Participation is expected at 1:15 PM in the Microbiology Laboratory where interesting laboratory results and laboratory-based questions are discussed with laboratory personnel and the clinical team from Internal Medicine Infectious Diseases.

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**Pediatrics - UMH**

COURSE ID: 032063  SUBJECT: PEDIAT  CATALOG NUMBER: 002ID-I.U

Requirements Designation: Clinical

Instructors: Pediatric Infectious Diseases Faculty

Course Contact: Dr. R. Alexander Blackwood

Duration: 4 Weeks

Grading Basis: Graded (H, HP, P, F)

Avg # of Patients Seen Each Week: 6 -10 new plus follow-up patients

On-Call Responsibility: None

Where to Report First Day of Clerkship: Medical Professional Bldg (MPB) Room D5101; 7:45 am.
2. Outpatient experiences: Residents and students on the Pediatric Infectious Diseases Rotation are expected to assume an important responsibility for care of patients seen in the Outpatient Department in evaluating the patient's presenting problem, in outlining a management plan, and in follow-up.

3. Diagnostic Laboratory: Training in the methods used in the Microbiology Diagnostic Laboratory, the Immunology Laboratory, the Parasitology Laboratory, and the Virology Laboratory occurs in the teaching sessions in the Microbiology Laboratory at 1PM daily.

4. Conferences: Residents and students on the Pediatric Infectious Diseases service regularly attend the following conferences:
   a. Pediatric Grand Rounds - weekly
   b. Morning Reports - three times weekly (optional)
   c. Infectious Diseases Grand Rounds in conjunction with Internal Medicine Infectious Diseases - weekly
   d. Pediatric Infectious Diseases Clinical Conference - weekly

5. Independent Learning: Residents and students on the Pediatric Infectious Diseases service supplement formal learning experiences with independent learning that will foster life-long learning. In this regard, they have access to the Infectious Diseases Library which includes textbooks related to pediatric and adult infectious diseases, immunology, and general pediatrics and is housed in the Infectious Diseases Fellows Room, accessible 24-hours a day, in the Pediatric Infectious Diseases Office Suite. This library also includes issues over the past ten years of the Journal of Infectious Diseases, Clinical Infectious Diseases, Infection and Immunity, and the Pediatric Infectious Diseases Journal. In addition, they have access to the Taubman Medical Library at the University of Michigan that serves as the main library resource for the University of Michigan Medical Center and is available on site and on line to our trainees. Trainees receive instruction on the use of computerized literature searches from the Infectious Diseases faculty and through workshops conducted by the Taubman Medical Library.

In addition, the Division has developed computer-based problem solving exercises in pediatric infectious diseases clinical problems. The teaching objectives of this curriculum are met through the participation of Pediatric Infectious Diseases student/resident in presentations at the Pediatric Infectious Diseases Clinical Conference.

C. PATIENT POPULATIONS

Available for training experiences in the Pediatric Infectious Diseases at Mott Children's Hospital and Holden Neonatal Unit
1. Primary immunodeficiency diseases.
2. Prematurely born and low birthweight babies.
3. HIV infected infants, children, and adolescents.
4. Patients immunosuppressed secondary to chemotherapy, malignancy, and transplantation (bone marrow, liver, heart, lung).
6. Cystic fibrosis patients, foreign-born patients, malnourished patients, children living in poverty, children lacking medical care secondary to cultural or religious beliefs.
7. Otherwise, well children with fever of unknown origin, immunization preventable diseases, rash illnesses, tropical diseases, and routine pediatric infections.

D. COMPETENCIES

During the course of the curriculum described above, the Pediatric Infectious Diseases residents and students will be provided opportunities to learn and will be evaluated on the following general competencies-
1. Patient care: Pediatric Infectious Diseases students/residents will be guided in providing patient care that is compassionate, appropriate, and effective for the treatment of infectious diseases problems and the promotion of health. They will be expected to:
   a. Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families.
   b. Gather essential and accurate information about their patients.
   c. Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up to date scientific evidence, and clinical judgement.
   d. Develop and carry out patient management plans.
   e. Counsel and educate patients and their families.
   f. Use information technology to support patient care decisions and patient education.
   g. Provide health care services aimed at preventing health problems or maintaining health.

Educational Goals
To give an overview of academic pediatric infectious diseases
Pediatrics - UMH

COURSE ID: 038534   SUBJECT: PEDIAT   CATALOG NUMBER: 201ARTO.U

Requirements Designation: Clinical
Instructors: Hilary Haftel, MD, MHPE; Mark Hoeltzel, MD; Smriti Mohan, MD; Meredith Riebschleger, MD, MS
Course Contact: Meredith Riebschleger, MD, MS, MPB 2nd floor (Medical Professional Building)
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 30 (4-6 patients seen during each of a total of 5-7 clinics per week)
On-Call Responsibility: None
Where to Report First Day of Clerkship: Email Dr. Riebschleger (mriebsch@med.umich.edu) during the week prior to the beginning of your rotation. You will also be contacted by our Division Administrator, Danielle Trejo, via email as she creates the clinic schedule for the month.

Objectives:
To Enhance Knowledge And Skills Pertaining To
- Interviewing, physical examination and other patient interactions.
- Interpretation of data.
- Clinical judgment.
- Procedures: Arthrocentesis and Intra-Articular Injection

To Increase Student Use/Review Of The Medical Literature
- As part of patient care (report to attending).
- As part of a conference or journal club.

To Increase Student Involvement In Conferences, Etc. By Having Students
- Present patients and/or patient data.
- Participate as a member of the audience.
- Prepare a brief presentation summarizing recent literature regarding a clinical question.

Distribution of Student's Time:
- 70 % Outpatient Clinical Care
- 20 % Inpatient Clinical Care
- 10 % Conferences/Lectures/Seminars

Course Description:
Students will function as first-year house officers, evaluating patients with musculoskeletal complaints and inflammatory diseases in the Pediatric Rheumatology Clinic and on inpatient consultations. They will work one-on-one with attendings, obtaining exposure to many different management styles. Students will become proficient in the pediatric musculoskeletal examination, a skill critical for individuals going into Pediatrics, Orthopedic Surgery, and Physical Medicine & Rehabilitation. They will learn about the diagnosis and initial management of common rheumatologic disorders, including the performance of arthrocentesis and intraarticular injection of steroids and the effective use of laboratory tests and imaging.
Physical Medicine & Rehab - UMH

E: Physical Medicine, Clinical, UMH

COURSE ID: 032170  SUBJECT: PMR  CATALOG NUMBER: 002CLNI.U

Requirements Designation:  Clinical
Instructors:  PM&R Faculty
Course Contact:  Percival Pangilinan, MD, The Burlington Office Center; 325 E. Eisenhower, Ann Arbor, 48108
Site Coordinator:  Tammie Wiley-Rice (734) 936-7201
Duration:  4 weeks
Grading Basis:  Graded (H, HP, P, F)
Avg # of Patients Seen Each Week:  15
On-Call Responsibility:  None
Where to Report First Day of Clerkship:  You will receive an email 2 weeks prior to the start of your rotation with information regarding where to report. Should you not receive this email one week prior to your start date, please email Tammie Wiley-Rice @ twileyr@med.umich.edu

Objectives:
To Enhance Knowledge And Skills Pertaining To
- Interviewing, physical examination and other patient interactions.
- Interpretation of data.
- Clinical judgment.
- Therapy and advice to patients.

To Increase Student Use/Review Of The Medical Literature
- As part of patient care (report to attending).
- As part of conference or journal club.

To Increase Student Involvement In Conferences, Etc. By Having Students
- Participate as a member of the audience.

Additional Objectives
- Learn about disability and chronic conditions.
- Learn about health care delivery systems.

Distribution of Student's Time:
- 40 %  Inpatient Clinical Care
- 40 %  Outpatient Clinical Care
- 20 %  Conferences/Lectures/Seminars

Course Description:
This rotation is ideal for any student pursuing a career in Physical Medicine & Rehabilitation (PM&R). It is also practical for students who are interested in Orthopedics, Neurology, Neurosurgery and Vascular Surgery who would like to gain insight on rehabilitation that a typical patient may require following treatment in these specialties. This rotation is highly recommended for visiting medical students.

Lectures/Conferences
* Tues. 7:30 am Resident Lecture
Wed. 7:15 am EMG Lecture
8:00 am Neuromuscular Conference
* Thur. 8:00 am Grand Rounds
9:00 - 11:00 am Resident Lectures
Consultation, Liaison, UMH

COURSE ID: 045759 SUBJECT: PSYCHIAT CATALOG NUMBER: 1CONI.U

Requirements Designation: Clinical
Instructors: Amy Rosinski, MD; Lisa Seyfried, MD; Charles Surber MD
Course Contact: Amy Rosinski, MD
Site Coordinator: La Wanda Garrett
Duration: 4 Weeks
Grading Basis: Graded (H, HP, P, F)
On-Call Responsibility: No Call
Where to Report First Day of Clerkship: 9D, University Hospital Unit 9D, Office 9822 at 8:00 AM.

Keywords: consultation, liaison, psychiatry, inpatient

Objectives:

To Enhance Knowledge And Skills Pertaining To

Interviewing, physical examination and other patient interactions
Interpretation of data
Clinical judgment
Therapy and advice to patients

Learning Objectives

1. Provide a comprehensive psychiatric evaluation on inpatients with primary medical and surgical presenting problems
2. Become proficient at performing the mental status examination including basic cognitive screening and assessment of dangerousness to self or others
3. Participate in a multidisciplinary treatment team; become familiar with the 2 roles of a C/L physician to both help the patient(consultant) and the primary team (liaison)
4. Become familiar with the laws regarding civil commitment, learn how to do a capacity evaluation.
5. Evaluate how medical/neurologic illness can cause psychiatric symptoms and how psychiatric illness can influence the medical disease process.

Distribution of Student's Time:

85% Inpatient Clinical Care
10% Conferences/Lectures/Seminars
5% Independent Study
Objectives:

To Enhance Knowledge And Skills Pertaining To

- Interviewing, mental status exam, physical examination and other patient interactions.
- Interpretation of data and diagnostic formulation.
- Clinical judgment.
- Therapy and advice to patients and families.
- Basic psychopharmacology in children and adolescents.

Distribution of Student's Time:

<table>
<thead>
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<th>Description</th>
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<tbody>
<tr>
<td>70%</td>
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</tr>
<tr>
<td>20%</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
<tr>
<td>10%</td>
<td>Outpatient Clinical Care</td>
</tr>
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</table>

Course Description:

Students will be involved in admissions to the Child and Adolescent Inpatient Psychiatry Service, attending to patient care, management and treatment planning. Students will participate in the multidisciplinary team responsible for diagnosing and treating children and adolescents with a variety of psychiatric disorders, as well as co-morbid medical diagnoses. Students will participate in admission interviews involving patients and families and participate in daily rounding. Students may also have some exposure to the child and adolescent consultation service, looking at psychiatric/psychological issues of children with illness working with children and their families and with the pediatric teams. By individual arrangement this rotation can provide the opportunity for doing supervised outpatient evaluations. Elective should be considered by students thinking of pediatrics and family practice as well as psychiatry.

Note: In addition to experiences listed here, other experiences and programs within the Department of Psychiatry can be individually arranged based on a student's background, previous experiences, and future interests. Contact: Sara Figueroa, M.D., (734) 936-5891.
Requirements Designation:  Clinical
Instructors:  Glick, et.al.
Course Contact:  Rachel Glick M.D., B1B205 UMH, 936-5900 or 615-1441, rglick@umich.edu
Site Coordinator:  Kathy Tuttle, 615-1441
Duration:  4 Weeks
Grading Basis:  Graded (H, HP, P, F)
Avg # of Patients Seen Each Week:  15 - 20
On-Call Responsibility:  Every 7 days (optional)
Where to Report First Day of Clerkship:  Contact Dr. Glick 4 weeks prior to start of elective. Psychiatry Emergency Services (PES), B1B205 UMH; 8:00 a.m.

Objectives:
To Enhance Knowledge And Skills Pertaining To
  Interviewing, physical examination and other patient interactions.
  Interpretation of data.
  Clinical judgment.
  Therapy and advice to patients.
To Increase Student Use/Review Of The Medical Literature
  As part of patient care (report to attending).
To Increase Student Involvement In Conferences, Etc. By Having Students
  Present patients and/or patient data.
  Participate as a member of the audience.

Distribution of Student's Time:

<table>
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<tr>
<td>95%</td>
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<tr>
<td>5%</td>
<td>Conferences/Lectures/Seminars</td>
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Course Description:
In the Psychiatric Emergency Services (PES) we see a wide variety of psychiatric presentations in patients of all ages. In a one-month long experience the student can see a variety of psychiatric and psychosocial problems that they will encounter in practice no matter what field they choose. This elective is specifically designed for students interested in psychiatry, emergency medicine, or any primary care specialty. Students will have the opportunity to work closely with psychiatry attendings and other PES clinical staff in direct patient care.
Inpatient Psychiatry, UMH

COURSE ID: 042868  SUBJECT: PSYCHIAT  CATALOG NUMBER: 1GENI.U

Requirements Designation: Clinical
Instructors: Michael Jibson, M.D., Ph.D.
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 3-4
On-Call Responsibility: None
Where to Report First Day of Clerkship: Unit 9C nurses station. Four weeks prior to beginning of elective, students must contact Dr. Michael Jibson at mdjibson@med.umich.edu or (734) 764-6875.

Objectives:
To Enhance Knowledge And Skills Pertaining To
Interviewing, physical examination and other patient interactions
Interpretation of data
Clinical judgment
Procedures: ECT
Therapy and advice to patients
To Increase Student Use/Review Of The Medical Literature
As part of patient care (report to attending)
To Increase Student Involvement In Conferences, Etc. By Having Students
Present patients and/or patient data
Participate as a member of the audience

Distribution of Student's Time:
100 % Inpatient Clinical Care

Course Description:
The elective consists of active involvement on an inpatient psychiatry unit as a functioning member of the treatment team. Students will conduct initial and follow-up evaluations of psychiatric inpatients, lead treatment team discussions of diagnosis and treatment, and serve as the primary therapist (under attending and house officer supervision) of 2-3 patients at a time. Clinical activities will be similar to those of a house officer on the service. The experience is designed primarily for students interested in psychiatry or students who wish to see severe or complicated manifestations of psychopathology.
Psychiatry - Cmbination

Course ID: 032284  Subject: PSYCHIAT  Catalog Number: 001GERP.X

Requirements Designation: Clinical
Course Contact: Mary Blazek M.D., Rachel Upjohn Building, 4250 Plymouth Road, Ann Arbor, MI 48109-Phone: 734-232-0393
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 30
On-Call Responsibility: None
Where to Report First Day of Clerkship: Contact Dr. Mary Blazek, (734) 232-0393, mblazek@med.umich.edu, four weeks prior to rotation to set up meeting time.

Objectives:
To Enhance Knowledge And Skills Pertaining To
Interviewing, physical examination and other patient interactions.
Interpretation of data.
Clinical judgment.

Distribution of Student's Time:

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<thead>
<tr>
<th>Percentage</th>
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<tbody>
<tr>
<td>50 %</td>
<td>Outpatient Clinical Care</td>
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<tr>
<td>20 %</td>
<td>Community resources, longterm care, including dementia unit</td>
</tr>
<tr>
<td>10 %</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
<tr>
<td>10 %</td>
<td>Inpatient Clinical Care</td>
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<tr>
<td>10 %</td>
<td>Independent Study</td>
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Course Description:
This elective can be tailored to the individual interests of each participating medical student and would be an especially valuable experience for those planning to pursue neurology, internal medicine, family medicine as well as psychiatry. A variety of settings allow clinical opportunities for participation in the evaluation and treatment of older patients with dementia and mental illness, to prepare future physicians to meet the need of the rising percentage of elderly in the population. Medical students will learn advanced skills in the assessment of geriatric psychiatry patients in both inpatient and outpatient settings as members of an interdisciplinary treatment team. Diagnoses focus on the 3 D's of geriatric psychiatry- Dementia, Depression, and Delirium. Advanced strategies in bedside neurocognitive testing will be presented. Learners will develop familiarity with geriatric community resources and family interventions. Interested students may sit in on neuro-psychometric testing sessions.

Sites include the University Hospital for inpatient and ECT, the East Ann Arbor Geriatrics Center for outpatient, and the VA for consultation/liaison and outpatient services. Participation at a nursing home, and a dementia care assisted living unit at Chelsea Retirement Community will round out the experience. Clinical opportunities can be tailored to the individual student's interests, including palliative care, ECT and more.

By the conclusion of the elective in Geriatric Psychiatry, the fourth year medical student will:
1) Perform an interview adapted to communicate effectively with older adults, compensating for changing sensory perception such as hearing, visual and cognitive deficits and taking into account cultural factors and language barriers.
2) List the components of a comprehensive approach to assessment of cognitive impairment, which includes a thorough history, physical exam, mental status exam and appropriate laboratory, imaging, psychometric and other medical testing.
3) Perform bedside cognitive and neurologic screening.
4) Propose treatment options (pharmacologic, non-pharmacologic and somatic (ECT)) for an older adult suffering from depression.
5) Maintain a high index of suspicion that acute changes in cognition, attention and behavior in the elderly may have an underlying reversible cause.
6) Formulate the clinical assessment and differential diagnosis of an elderly patient with delirium and make initial recommendations for further evaluation including appropriate laboratory, imaging, psychometric and other medical testing.
7) Develop an initial management plan, including both non-pharmacologic and pharmacologic treatments, for the agitated elderly patient with delirium.
8) Demonstrate awareness of key concepts related to aging that impact the physicians relationship with the older patient, including:
   a) resilience with aging, and how adaptation to change is correlated with successful aging.
   b) cohort effects related to the events/values/experiences of the time period during which the older patient matured.
   c) co-morbidity with aging, and how multiple medical co-morbidities impact the evaluation of the older patient.
Alcohol, Subabuse, UMATS, UMH

COURSE ID: 032296       SUBJECT: PSYCHIAT       CATALOG NUMBER: 001SUBO.U

Requirements Designation: Clinical
Course Contact: Dr. Ed Jouney
Duration: 4 Weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 4-6
On-Call Responsibility: None
Where to Report First Day of Clerkship:
University of Michigan Addiction Treatment Services. Please contact Dr. Ed Jouney by e-mailing ejouney@med.umich.edu or by paging 14535 four weeks prior to start of elective.

Objectives:

To Enhance Knowledge And Skills Pertaining To
Interviewing, physical examination and other patient interactions.
Interpretation of data.
Clinical judgment.
Therapy and advice to patients.

To Increase Student Use/Review Of The Medical Literature
As part of patient care (report to attending).

To Increase Student Involvement In Conferences, Etc. By Having Students
Present patients and/or patient data.
Participant as a member of the team.

Distribution of Student's Time:
75 % Outpatient Clinical Care
25 % Conferences/Lectures/Seminars

Course Description:
Learn the essentials of identification, assessment, and treatment of patients with substance-related disorders. Emphasis on screening and brief intervention techniques. Learn principles of detoxification for alcohol, opioids, and cocaine; interpretation of drug testing results; proper prescribing practices for patients with substance use disorders. Students follow patients and accompany the attending during psychiatric evaluations of patients with substance use disorders.
Peds Psychosomatics, UMH

COURSE ID: 047068       SUBJECT: PSYCHIAT       CATALOG NUMBER: 2PCLI.U

Requirements Designation: Clinical

Instructors: Nasuh Malas MD, MPH (734-764-7397)
Course Contact: Nasuh Malas MD, MPH (734-764-7397)
Site Coordinator: Patti Trapp (734-763-5444)
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)

Avg # of Patients Seen Each Week: Students will primarily manage the care of 2-3 patients and to not exceed 5 patients at any one time

On-Call Responsibility: None

Where to Report First Day of Clerkship: Please report to the Starbucks GoBrew at 8:30 AM and page the Child Psychiatry Fellow at pager 31045 or Dr. Malas at pager 19545.

Keywords: Pediatrics, Psychiatry, Consultation, Consult, Liaison, Quality Improvement

Objectives:

Learning Objectives
1. Provide a comprehensive psychiatric evaluation, oral presentation and documentation on pediatric patients ages 0-25 with co-morbid physical health needs and psychiatric needs
2. Verbalize the complex interplay between subjective distress, physical disease, and psychiatric disorders
3. Participate in a multidisciplinary treatment team; become familiar with the 2 roles of a C/L physician to both help the patient (consultant) and the primary team (liaison)
4. Use developmentally appropriate language with children ranging in age and developmental capacity (including patients with developmental delay and autism). This includes being able to interact and engage with both patients and families, as well as use brief bedside therapeutic techniques, including motivational interviewing.
5. Evaluate how physical illness can cause psychiatric symptoms and how psychiatric illness can influence the physical health of patients. This includes understanding the systems of care involved in the evaluation and treatment of psychiatric conditions in the pediatric medical setting

Distribution of Student's Time:

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<th>Distribution</th>
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<tbody>
<tr>
<td>Inpatient Clinical Care</td>
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<tr>
<td>Conferences/Lectures/Seminars</td>
<td>10 %</td>
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<tr>
<td>Service Learning</td>
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<tr>
<td>Independent Study</td>
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Course Description:
The Pediatric Consultation-Liaison Psychiatry Rotation at the C.S. Mott Childrens Hospital of the University of Michigan has been designed to provide the fourth year medical student with a comprehensive clinical and academic experience at the interface of pediatric medicine and child and adolescent psychiatry.

This four-week rotation will focus primarily on the psychiatric consultation-liaison service at the C.S. Mott Childrens Hospital. This service provides inpatient consultation to a wide variety of general and specialty pediatric services within the larger pediatric hospital. The medical student will see patients with the consult faculty member and child psychiatry fellow and present them to one of a team of child psychiatrists who work in this setting. The medical student will also be responsible to write notes on the patients they are following as well as engage in other clinical activities including brief psychotherapeutic interventions, attendance at care coordination meetings and providing psycho education. Over the course of the rotation, the medical student will gain increased autonomy, such that by the end of the rotation they should be functioning at the level of an early psychiatry intern. In addition to this primary focus, medical students will also participate in clinical and educational activities specific to consultation psychiatry and have the opportunity to engage in unique educational opportunities in pediatrics, if so interested. Lastly, the student will be expected to develop either a small quality improvement project or brief review of the literature during their rotation with regular weekly supervision with Dr. Malas on Friday afternoons for guidance and support.

We hope this broad exposure will provide a strong foundation in Pediatric Consultation- Liaison Psychiatry, and enrich the students overall training in pursuit of a future career in Psychiatry, or Pediatric Medicine.
Radiology - UMH

E:Radiology, Abdominal, UMH

COURSE ID: 032347   SUBJECT: RADIOL   CATALOG NUMBER: 001ABDP.U

Requirements Designation: Clinical
Instructors: Dr. Ashish Wasnik
Course Contact: Dr. Leslie Quint
Site Coordinator: Amy Spencer, (734) 647-4144
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)

On-Call Responsibility: One evening 1700/1800 on-call resident four hour shift, but no overnights.

Where to Report First Day of Clerkship: Radiology Library, Bl D411 University Hospital at 8:30 AM, report for orientation.

Objectives:
To Enhance Knowledge And Skills Pertaining To
- Introduction to different types of imaging modalities.
- Understanding the available imaging techniques and the appropriate utilization of imaging in the clinical setting.
- Ability to interpret radiologic imaging studies.

Distribution of Student's Time:

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<td>Clinical Research</td>
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<td>Service Learning</td>
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Course Description:
The student will be exposed to different imaging modalities (conventional radiographs, gastrointestinal and genitourinary radiology and computed tomography, MRI, ultrasound and body intervention) used in the diagnosis of abdominal disorders. The proper use of each imaging modality in the diagnosis of abdominal diseases will be covered. The student will be required to prepare four cases to be retained in the departmental teaching file, which discuss the radiologic findings and appropriate workup of the conditions demonstrated on the films; case reports will be prepared on a provided digital (PowerPoint) template and presented to the course instructor and other medical students.

1. Learn the use of various imaging methods in diagnosis of abdominal disorders.
2. Understand the anatomical basis of radiological imaging findings.
3. Learn physical aspects of generation of radiological images.
4. Rotation consists of ONE (1) week in GI/GU fluoroscopy, ONE (1) weeks in CT, ONE (1) week in MR/cross-sectional interventional, and ONE (1) week ultrasound.
Radiology - UMH

E: Radiology, Bone, UMH

COURSE ID: 032351                SUBJECT: RADIOL                CATALOG NUMBER: 001BONP.U

Requirements Designation:          Clinical
Instructors:                        Dr. Qian Dong
Course Contact:                     Dr. Leslie Quint
Site Coordinator:                  Amy Spencer, (734) 647-4144
Duration:                          4 weeks
Grading Basis:                     Graded (H, HP, P, F)

On-Call Responsibility:            One evening 1700/1800 on-call resident four hour shift, but no overnights.*
Where to Report First Day of Clerkship:          Radiology Library, Bl D411 University Hospital at 8:30 AM, report for orientation.

Objectives:

Learning Objectives

Contact Faculty Preceptor

Distribution of Student’s Time:

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<td>Outpatient Clinical Care</td>
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<td>Emergency Department Clinical Care</td>
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<td>5 %</td>
<td>Clinical Research</td>
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<td>Service Learning</td>
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</tbody>
</table>

Course Description:

Clinical experience in musculoskeletal radiology including plain films, arthrography, MRI, CT and ultrasound.
Students are expected to keep a record of interesting cases, which will be submitted to the instructors at the end of the rotation. 7:30am lecture sessions may be scheduled and required.
E: General Radiology, UMH

COURSE ID: 032363  SUBJECT: RADIOL  CATALOG NUMBER: 001CLNP.U

Requirements Designation:  Clinical
Instructors:  Dr. Leslie Quint, Clerkship Director
Course Contact:  Dr. Leslie Quint
Site Coordinator:  Amy Spencer, (734) 647-4144
Duration:  4 weeks
Grading Basis:  Graded (H, HP, P, F)
On-Call Responsibility:  One evening 1700/1800 on-call resident four hour shift, but no overnights.
Where to Report First Day of Clerkship:  Radiology Library, Bl D411 University Hospital at 8:30 AM, report for orientation.

Objectives:

To Enhance Knowledge And Skills Pertaining To
- Interpretation of images.
- Clinical judgment.
- Therapy and advice to patients, especially with regard to radiology utilization.

To Increase Student Use/Review Of The Medical Literature
- As part of departmental conferences, readout session, student presentation.

To Increase Student Involvement In Conferences, Etc. By Having Students
- Radiology problem-solving oral presentations.

Distribution of Student's Time:

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<td>35%</td>
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<td>Inpatient Clinical Care</td>
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<td>Conferences/Lectures/Seminars</td>
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<td>10%</td>
<td>Independent Study</td>
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<tr>
<td>5%</td>
<td>Emergency Department Clinical Care</td>
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Course Description:

This is a structured elective emphasizing the use of diagnostic imaging in patient management. Daily student seminars emphasize pathophysiology and differential diagnosis and stress problem solving to determine the appropriate work-up of common clinical entities. Observation of common radiologic procedures is included. Students are usually able to select their weekly rotation, and spend one week in each of four different areas of the radiology department. Evaluation includes an online exam, a ten (10) minute oral presentation in PowerPoint format, and evaluations of performance on each weekly clinical rotation.

**If enrollment is 5 students or less student conferences/seminars may not be scheduled**

This "survey course" elective is especially popular with students seeking a general radiology experience to determine if radiology might be a suitable career choice or to gain some radiology experience which will prove useful during and after a clinical residency.

The General Radiology elective is appropriate early in M4 year to explore a possible interest in Radiology or at any time in M4 to obtain an overview of Radiology.

HOWEVER, it is not recommended for the M4 who already plans to match in Radiology and would be requesting a letter of recommendation from Radiology faculty.

A more thorough and meaningful letter can be obtained following a month long Radiology subspecialty or Radiology research elective.
Interventional Radiology, UMH

COURSE ID: 042599  SUBJECT: RADIOL  CATALOG NUMBER: 1INVP.U

Requirements Designation: Clinical
Instructors: Dr. Ravi Srinivasa
Course Contact: Dr. Leslie Quint
Site Coordinator: Amy Spencer, (734) 647-4144
Duration: 4 Weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 20
On-Call Responsibility: One evening 1700/1800 on-call resident four hour shift, but no overnights.
Where to Report First Day of Clerkship: Radiology Library, B1D411 University Hospital at 8:30 AM, report for orientation.

Objectives:
- **To Enhance Knowledge And Skills Pertaining To**
  - Interviewing, physical examination and other patient interactions
  - Clinical judgment
  - Procedures
  - Vascular and interventional radiologic procedures
  - Therapy and advice to patients
- **To Increase Student Use/Review Of The Medical Literature**
  - As part of patient care (report to attending)
  - As part of a conference or journal club
- **To Increase Student Involvement In Conferences, Etc. By Having Students**
  - Present patients and/or patient data
  - Participate as a member of the audience

Distribution of Student's Time:

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<td>Emergency Department Clinical Care</td>
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<td>5%</td>
<td>Independent Study</td>
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<td>5%</td>
<td>Simulation</td>
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<td>Service Learning</td>
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Course Description:

The objective of the course (M4 VIR rotation) is to provide medical students with an introductory experience in the performance of vascular and interventional procedures integrated with the clinical management of patients. The rotation is to be supplemented by lectures on the indications, contraindications, techniques, clinical outcomes and complications of various vascular diagnostic, vascular interventional and nonvascular interventional procedures.

Medical students will be exposed to the full breadth of interventional radiologic procedures in a very diverse and unique practice including peripheral vascular and aortic interventions, interventional oncologic interventions, lymphangiography and thoracic duct embolization, venous access, enteral access, pulmonary vascular interventions, biliary and genitourinary interventions, TIPS, BRTO, venous recanalization, pediatric interventions, and vascular malformations among much more.

The medical students daily rotation begins at 6:00 AM and usually ends at approximately 5:00 PM each day. The students are expected to participate in the evaluation and consultation of patients referred for interventional procedures in addition to participating in the procedure and following the patients post procedure course. The student shall acquire early interventional skills including the use of needles, guide wires, and catheters, and vascular access techniques using ultrasound guidance, the basic interventional skills, and venous access procedures.

The medical students are expected to attend the twice a week vascular/interventional follow-up conference in addition to participation in daily morning rounds and prior day case discussion. Additional 7:30 am lecture sessions may be scheduled and required.

At the end of the rotation, the student will be required to give a 20-30 minute powerpoint presentation on an interesting case they participated in during the course of the rotation.
Neuroradiology, UMH

COURSE ID: 032388  SUBJECT: RADIOL  CATALOG NUMBER: 001NEUP.U

Requirements Designation: Clinical
Instructors: Dr. Gaurang Shah
Course Contact: Dr. Leslie Quint
Site Coordinator: Amy Spencer, (734) 647-4144
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
On-Call Responsibility: One evening 1700/1800 on-call resident four hour shift, but no overnights.
Where to Report First Day of Clerkship: Radiology Library, Bl D411 University Hospital at 8:30 AM, report for orientation.

Objectives:

Learning Objectives
Contact Faculty Preceptor

Distribution of Student’s Time:

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<th>Percentage</th>
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<td>Independent Study</td>
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<td>Clinical Research</td>
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<td>Service Learning</td>
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Course Description:

Observation of the daily activities in the Division of Neuroradiology, including CT and MR interpretation, cerebral angiography, myelography, biopsy and drainage procedures. 7:30am lecture sessions may be scheduled and required.

An oral presentation or written report is required in order to earn a High Pass or Honors.
Requirements Designation: Clinical

Instructors: Dr. Anca Avram
Course Contact: Dr. Leslie Quint
Site Coordinator: Amy Spencer, (734) 647-4144
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)

On-Call Responsibility: One evening 1700/1800 on-call resident four hour shift, but no overnights.
Where to Report First Day of Clerkship: Radiology Library, B1 D411 University Hospital at 8:30 AM, report for orientation.

Objectives:

To Enhance Knowledge And Skills Pertaining To
- Interviewing, physical examination and other patient interactions.
- Interpretation of nuclear medicine scans.
- Ability to formulate a differential diagnosis based on scan appearance.
- Basic knowledge of nuclear medicine procedures.
- Setting up imaging procedures.
- Radiopharmaceutical Therapy and advice to patients.

To Increase Student Use/Review Of The Medical Literature
- As part of patient care (report to attending).
- As part of the correlation conference presentation.

To Increase Student Involvement In Conferences, Etc. By Having Students
- Present patient data and scintigraphic findings.
- Participate as a member of the audience.

Distribution of Student's Time:

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<tr>
<td>50</td>
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<td>Conferences/Lectures/Seminars</td>
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<td>Emergency Department Clinical Care</td>
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<td>10</td>
<td>Service Learning</td>
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Course Description:
The student will learn 1) the scope of the practice of Nuclear Medicine, diagnostic and therapeutic; 2) the general principles of the medical application of radiopharmaceuticals: physics, instrumentation, image production and radiobiology; 3) the clinical uses of quantitative studies and visual images including planar scintigraphy, single photon emission tomography and positron emission tomography (PET) for diagnosis; and 4) the prescription of radiopharmaceutical therapy. 7:30am lecture sessions may be scheduled and required.
Radiology - UMH

E: Radiology, Pediatric, UMH

COURSE ID: 032396  SUBJECT: RADIOL  CATALOG NUMBER: 001PEDP.U

Requirements Designation: Clinical
Instructors: Dr. Maria Ladino-Torres
Course Contact: Dr. Leslie Quint
Site Coordinator: Amy Spencer, (734) 647-4144
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)

On-Call Responsibility: One evening 1700/1800 on-call resident four hour shift, but no overnights.

Where to Report First Day of Clerkship: Radiology Library, Bl D411 University Hospital at 8:30 AM, report for orientation.

Objectives:

To Enhance Knowledge And Skills Pertaining To
Interpretation of data.
Clinical judgment.

To Increase Student Use/Review Of The Medical Literature
As part of conferences, readout session, and PowerPoint presentation.

To Increase Student Involvement In Conferences, Etc. By Having Students
Present patients and/or patient data.
Participate as a member of the audience.

Distribution of Student's Time:

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<th>Percentage</th>
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<td>Emergency Department Clinical Care</td>
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<tr>
<td>5 %</td>
<td>Independent Study</td>
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Course Description:

The 4-week elective in Pediatric Radiology gives the student an opportunity to participate in various aspects of diagnostic imaging in children; reviewing all different imaging modalities including plain radiographs, fluoroscopy, ultrasound, CT and MR. Teaching occurs daily in a one-on-one or small group setting with residents and faculty. Daily Radiology case conferences and several ongoing clinical-radiological conferences occur during the rotation. Much of the teaching occurs at the monitor while studies are being reviewed. Students also accompany residents and faculty during fluoroscopy studies. Indications for examinations, what various examinations entail, and interpretive skills are stressed during this elective which also affords the student a broad overview of several imaging methods. It has been very popular with students considering a residency in Pediatrics. A PowerPoint presentation is required in addition to participation in the daily activities of the section. 7:30am lecture sessions may be scheduled and required.
E:Radiology, Thoracic, UMH

COURSE ID: 032409  SUBJECT: RADIOL  CATALOG NUMBER: 001THSP.U

Requirements Designation: Clinical
Instructors: Dr. Prachi Agarwal
Course Contact: Dr. Leslie Quint
Site Coordinator: Amy Spencer, (734) 647-4144
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)

On-Call Responsibility: One evening 1700/1800 on-call resident four hour shift, but no overnights.

Where to Report First Day of Clerkship: Radiology Library, Bl D411 University Hospital at 8:30 AM, report for orientation.

Objectives:

To Enhance Knowledge And Skills Pertaining To
Interpretation of Data.
Clinical judgment.

To Increase Student Use/Review Of The Medical Literature
As part of patient care (report to attending).

To Increase Student Involvement In Conferences, Etc. By Having Students
Present patients and/or patient data.

Distribution of Student’s Time:

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<td>Preparing Case Presentation</td>
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<td>Independent Study</td>
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<td>5 %</td>
<td>Clinical Research</td>
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Course Description:

This rotation will concentrate on interpretation of the chest radiography, and will include CT of the thorax. Directed reading will be required. The student will attend interdepartmental conferences. Appropriate sequencing of examinations will be stressed. At the end of your rotation, four cases will be presented and a copy also submitted to Amy for filing. 7:30am lecture sessions may be scheduled and required.

Goals and objectives of the rotation will be in correlation with the curriculum as defined by the Society of Thoracic Radiology.

These can be found at: http://www.thoracicrad.org/assets/downloads/education/Currimedstudent-01.pdf
Radiation Oncology - UMH

E: Radiation Therapy, Oncology, UMH

COURSE ID: 032423  SUBJECT: RADONCO  CATALOG NUMBER: 001ONCO.U

Requirements Designation: Clinical
Instructors: Reshma Jagsi, M.D., DPhil
Course Contact: Dr. Reshma Jagsi B2C490 University Hospital, 936-8700
Site Coordinator: Kelley Coppola
Duration: One or two months
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 5-10; students are generally paired with an attending preceptor to whom they present a single patient during the course of the clinic and for whom they do extensive case-related reading and preparation to appreciate the nuances of radiation oncology clinical care.

On-Call Responsibility: None
Where to Report First Day of Clerkship: Floor B2, Room C430, University Hospital, 7:30 a.m., Report to Chief Residents.

Objectives:
Learning Objectives
Contact Faculty Preceptor

Distribution of Student's Time:

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<td>Conferences/Lectures/Seminars</td>
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<td>10 %</td>
<td>Inpatient Clinical Care</td>
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<td>5 %</td>
<td>Simulation</td>
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Course Description:
Students will participate in all aspects of a busy radiation oncology clinical practice. Physical diagnosis opportunities are outstanding as the department consults on over 1500 new oncology cases annually. Multidisciplinary care of the cancer patient is stressed through participation in comprehensive clinics such as the Breast Care Center, Multidisciplinary Urology Clinic, Multidisciplinary Sarcoma Clinic and patient management conferences on lymphoma, thoracic, ENT, GYN, GI, neurological and pediatric malignancies. Radiographic and pathologic correlations are stressed.
Peds Cardiac Surgery, UMH

COURSE ID: 043414  SUBJECT: SURGERY  CATALOG NUMBER: 1CONI.U

Requirements Designation: Clinical
Instructors: Drs. Bove, Ohye, Hirsch-Romano, and Si
Course Contact: Jennifer Hirsch-Romano, MD. Mott Children's Hospital 11-733, 936.4978
Site Coordinator: Jennifer Hirsch-Romano, MD. Mott Children's Hospital 11-733, 936.4978
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 10
On-Call Responsibility: 2 nights until 11 pm
Where to Report First Day of Clerkship: Please email Dr. Hirsch-Romano(jhirsch@umich.edu) day before to confirm location and time.

Objectives:
To Enhance Knowledge And Skills Pertaining To
- Interviewing, physical examination and other patient interactions
- Interpretation of data
- Clinical judgment
- Procedures:
  - Cardiac cath, echocardiography
  - Pediatric cardiac surgery
  - Pediatric cardiac ICU care
  - Therapy and advice to patients

To Increase Student Use/Review Of The Medical Literature
As part of patient care. (report to attending)

To Increase Student Involvement In Conferences, Etc. By Having Students
Participate as a member of the audience

Distribution of Student’s Time: 95 % Inpatient Clinical Care
5 % Conferences/Lectures/Seminars

Course Description:
This rotation is designed to provide the student with a comprehensive overview of congenital heart disease and the interaction of Pediatric Cardiology and Pediatric Cardiac Surgery. The student will experience the diagnostic modalities (cath, echo, MRI) and evaluation of children with congenital heart disease. A portion of the rotation will entail time on the Pediatric Cardiac Surgery service, observing and learning about the operative corrections of these lesions. Another aspect of the rotation will be time spent in the Pediatric ICU, assisting in the post-op care of these patients and learning about their unique physiology. The rotation is flexible to allow concentration in any of these areas depending on the students interests.
Adult Cardiac Surg, UMH

COURSE ID: 046410  SUBJECT: SURGERY  CATALOG NUMBER: 2CRDP.U

Requirements Designation: Clinical
Instructors: Francis Pagani, MD; Rishindra Reddy, MD; Richard Prager, MD and other faculty
Site Coordinator: Dawn Shufflin, Administrative Assistant, 5144 CVC 647-2894
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 10
On-Call Responsibility: No official call, students may elect to stay late or participate in emergency cases as they arise
Where to Report First Day of Clerkship: 5144 Cardiac Surgery Offices 7:30 AM
Keywords: Cardiac Surgery, Cardiopulmonary Bypass, Coronary Artery Disease, Valvular Disease

Objectives:

Learning Objectives
1. Understand the preoperative work up of adult cardiac surgery patients
2. Gain exposure to operative cardiac surgery, including cardiopulmonary bypass, coronary disease, valvular disease, and heart failure.
3. Understand post-operative pathways for cardiac surgery care

Distribution of Student’s Time:

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<td>10%</td>
<td>Independent Study</td>
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<td>Simulation</td>
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Course Description:

Explore the gamut of Adult Cardiac and Adult Thoracic Surgery and expand understanding of patient selection, operative procedures and care and longterm follow up. Students will be exposed to the operative treatment of acquired cardiovascular diseases in the adult population. Procedures students will encounter include valvular heart surgery, coronary artery bypass grafting procedures, surgery of the aorta, and lung surgery. Students will participate in outpatient, ICU, and non-ICU patient care with emphasis on preoperative evaluation of the cardiac and thoracic surgical patient. Students will also have exposure to the Surgical ICU and may participate with our multi-disciplinary team in the care of the critically-ill patient. Students will be required to attend a number of didactic lectures during the course of their rotation.

Learning Objectives:
Description of Experience (please include 3-5 Outcome based Learning Objectives):
1. Understand the preoperative work up of adult cardiac and thoracic surgery patients
2. Gain exposure to operative cardiac surgery, including cardiopulmonary bypass, coronary disease, valvular disease, and heart failure.
3. Understand post-operative pathways for cardiac and thoracic surgery care
4. Gain exposure to operative thoracic surgery, including minimally invasive and open approaches.
Surgery - VAH

Cardiac, Thoracic, VAH

COURSE ID: 046411 SUBJECT: SURGERY CATALOG NUMBER: 2CTHP.V

Requirements Designation: Clinical
Instructors: Jonathan Haft, MD; Rishindra Reddy, MD; Richard Prager, MD
Course Contact: Jonathan Haft, MD haft@med.umich.edu
Site Coordinator: Dawn Shuffin, Administrative Assistant, 514 CVC, 647-2894
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 10
On-Call Responsibility: No official call, students may elect to stay late or participate in emergency cases as they arise
Where to Report First Day of Clerkship: VA 5th Floor SICU TIME: 6am
Keywords: Cardiac Surgery, Lung Surgery, Cardiopulmonary Bypass, Coronary Artery Disease, Valvular Disease

Objectives:

Learning Objectives
1. Understand the preoperative work up of adult cardiac and thoracic surgery patients
2. Gain exposure to operative cardiac surgery, including cardiopulmonary bypass, coronary disease, valvular disease, and heart failure.
3. Understand post-operative pathways for cardiac and thoracic surgery care
4. Gain exposure to operative thoracic surgery, including minimally invasive and open approaches.

Distribution of Student's Time:

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Course Description:

Explore the gamut of Adult Cardiac and Adult Thoracic Surgery and expand understanding of patient selection, operative procedures and care and longterm follow up. Students will be exposed to the operative treatment of acquired cardiovascular diseases in the adult population. Procedures students will encounter include valvular heart surgery, coronary artery bypass grafting procedures, surgery of the aorta, and lung surgery. Students will participate in outpatient, ICU, and non-ICU patient care with emphasis on preoperative evaluation of the cardiac and thoracic surgical patient. Students will also have exposure to the Surgical ICU and may participate with our multi-disciplinary team in the care of the critically-ill patient. Students will be required to attend a number of didactic lectures during the course of their rotation.

Learning Objectives:
1. Understand the preoperative work up of adult cardiac and thoracic surgery patients
2. Gain exposure to operative cardiac surgery, including cardiopulmonary bypass, coronary disease, valvular disease, and heart failure.
3. Understand post-operative pathways for cardiac and thoracic surgery care
4. Gain exposure to operative thoracic surgery, including minimally invasive and open approaches.
Thoracic Oncology, UMH

COURSE ID: 045034    SUBJECT: SURGERY    CATALOG NUMBER: 2THNO.U

Requirements Designation: Clinical
Instructors: Rishi Reddy, Leslie Quint, Greg Kalemkerian, James Hayman, Douglas Arenberg
Course Contact: Rishi Reddy
Site Coordinator: Amy Spencer; (734)647-4144
Duration: 4 Weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 10-20
On-Call Responsibility: No call
Where to Report First Day of Clerkship: Email Dr. Reddy the Thursday/Friday prior to the rotation, reddyrm@med.umich.edu

Objectives:
To Enhance Knowledge And Skills Pertaining To
Interviewing, physical examination and other patient interactions
Interpretation of data
Clinical judgment
Therapy and advice to patients

Distribution of Student's Time:
50 % Outpatient Clinical Care
20 % Inpatient Clinical Care
20 % Service Learning
10 % Conferences/Lectures/Seminars

Course Description:
1. M4 students will rotate in all disciplines related to the care of thoracic oncology patients, including Surgery, Medical Oncology, Radiation Oncology, Radiology, Pulmonary Medicine, Pathology, and Nuclear Medicine. Students will focus on outpatient clinic rotations, and attend the weekly Thoracic Oncology Tumor Board Conference every Friday at 12pm. Students will be expected to participate in online 30-60 min interactive lectures, attend procedures related to thoracic cancers (surgeries, biopsies, radiation treatments, etc.), and to present patients at the Tumor Board for discussion and evaluation. Students will be evaluated by faculty based on their patient presentations/write-ups, on number of patients evaluated, and by pre and post-lecture questions.
2. OBLOs-At the end of this rotation, students should be able to- 1) Understand the role of multiple disciplines in the care of thoracic oncology patients. 2) coordinate and interpret the work-up for patients with new diagnoses of thoracic cancers (lung, esophagus, etc.), and 3) be able to communicate the risks and benefits of each treatment modality to faculty, and ultimately to patients.
GI Surgery, UMH

COURSE ID: 042482  SUBJECT: SURGERY  CATALOG NUMBER: 701GI-I.U

Requirements Designation: Sub I, Clinical
Instructors: Drs. Knol, Mulholland, Simeone, Minter, Nathan
Course Contact: Dr. Knol; 2210N Taubman Health Center; 936-7607
Site Coordinator: Kimberly Bologna, kabolog@med.umich.edu
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: OPEN
On-Call Responsibility: Per staff - Not more often than every 3 days
Where to Report First Day of Clerkship: Contact the SGW Chief resident the day before by page for location to report on the first day of rotation.

Objectives:

Additional Objectives
Please refer to Subl objectives in the Subinternship section of the M4 Handbook.

Distribution of Student’s Time:
70 % Inpatient Clinical Care
15 % Outpatient Clinical Care
10 % Conferences/Lectures/Seminars
5 % Emergency Department Clinical Care

Course Description:
Students will be responsible for evaluating elective and urgent admissions on a rotating schedule that corresponds to that of the house officers. Student will be an active participant on the service with supervised primary responsibility for inpatient clinical care, evaluation of patients in an outpatient setting, and participation in the O.R. Didactic teaching by faculty occurs on a regularly scheduled basis, either on rounds, in the O.R. or in faculty - designated small group conferences.

KEY WORDS: hepatopancreatobiliary surgery, pancreas, liver, biliary, Gastrointestinal surgery, gastrointestinal diseases, laparoscopy, minimally invasive surgery
Surgery - UMH

COURSE ID: 042485  SUBJECT: SURGERY  CATALOG NUMBER: 701GSE1.U

Requirements Designation: Sub I, Clinical
Instructors: Drs. Gauger, Miller, Cohen, Hughes, Burney, Finks, Varban, Dimick, Endocrine Surgery Fellow
Course Contact: David Hughes, M.D.
Site Coordinator: Kimberly Bologna, kabolog@med.umich.edu
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 25
On-Call Responsibility: Every 3-4 days
Where to Report First Day of Clerkship: Please page the chief resident on call for Surgery General Blue (SGB).

Objectives:

Clerkship Objectives (Beyond Comprehensive Care Of Patients Including Evaluation, Diagnosis And Therapy)
Build familiarity with surgical diseases, workup, and management.
Increase level of structured independence in patient management.
To increase student use/ review of the medical literature

Additional Objectives
Please refer to SubI objectives in the Subinternship section of the M4 Handbook.

Distribution of Student's Time:
75 % Inpatient Clinical Care
25 % Outpatient Clinical Care

Course Description:
Sub-internship in General Surgery with a focus on the practice of endocrine surgery, and minimally invasive and bariatric surgery. Approximately 50% of the cases are endocrine and the other 50% of the cases are minimally invasive bariatric and general surgery cases. Endocrine surgery includes diseases of the parathyroid, thyroid, adrenal, pancreas, neuroendocrine tumors, and management of familial endocrine disorders. Fourth-year students are expected to assume more responsibility than third year students and, when reasonable, function with enhanced responsibility at a sub-intern level. Duties include attending all SGB service and General Surgery conferences, seeing patients in the outpatient clinics (Taubman Center, Cancer Center, and Domino's Farms). The sub-interns main responsibility is the pre- and post-operative care of the surgery patient. This mirrors the general surgery intern's duties. The M4 will participate in OR cases at a higher level than during the M3 clerkship.
Surgery, Oncology, UMH

COURSE ID: 042483    SUBJECT: SURGERY    CATALOG NUMBER: 701ONCI.U

Requirements Designation: Sub I, Clinical
Instructors: Drs. Byrn, Chang, Hardiman, Hendren, Jeruss, Morris, Regenbogen, Sabel
Course Contact: Dr. Scott Regenbogen
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 10 outpatient/10 inpatient
On-Call Responsibility: No required overnight call. Will participate in inpatient care every other weekend.
Where to Report First Day of Clerkship: Contact the chief resident in advance to be present for morning rounds on the first day of the rotation.

Objectives:

Additional Objectives
Please refer to SubI objectives in the Subinternship section of the M4 Handbook.

Distribution of Student's Time:

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<td>Emergency Department Clinical Care</td>
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<td>Service Learning</td>
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Course Description:

This clerkship is designed to provide subinternship experience in general surgery for senior medical students, with a concentrated exposure to the subspecialties of surgical oncology and colorectal surgery. Students share primary responsibility for all aspects of patient management, including ICU patients, and participate in both major and minor surgical procedures. In addition, students will be involved in the management of patients in the ambulatory care setting and will have broad exposure to relevant tumor board and multidisciplinary conferences. This is an excellent experience for students who plan a career in surgery.
**Course Information:**

**Course ID:** 032616  
**Subject:** SURGERY  
**Catalog Number:** 701PEDI.U  
**Requirements Designation:** Sub I, Clinical  
**Instructors:** Ehrlich, Kunisaki, Arnold, Coran, Polley, Hirschl, Teitelbaum, Geiger, Bruch, Jarboe, Arnold, and Mychaliska  
**Course Contact:** Dr. Theodore Polley  
**Site Coordinator:** Cheryl Peterson, Mott Children’s Hospital 764-6482  
**Duration:** 4 weeks  
**Grading Basis:** Graded (H, HP, P, F)  
**Avg # of Patients Seen Each Week:** OPEN  
**On-Call Responsibility:** None  
**Where to Report First Day of Clerkship:** 4th Floor Mott Pediatric Surgery; 8:00 a.m. Contact Dr. Theodore Polley 2 weeks before the rotation begins.

**Objectives:**

**Additional Objectives**  
Please refer to SubI objectives in the Subinternship section of the M4 Handbook.

**Distribution of Student’s Time:**

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**Course Description:**

Students will function like house officers on the pediatric surgical service, and carry a beeper. They will be an integral part of the service and will be responsible for writing orders, emergency resuscitation, placement of intravascular catheters and other tubes, and other management carried out by surgical H.O. I’s and II’s. Emphasis will be placed on the care of patients in the Pediatric Intensive Care Unit and Neonatal Intensive Care Unit. Students will assist with operations and actively participate in the outpatient clinic.
Surgery - UMH

COURSE ID: 032632  SUBJEC: SURGERY  CATALOG NUMBER: 701PLSI.U

Requirements Designation: Sub I, Clinical
Instructors: Dr. Kozlow
Course Contact: Dr. Jeffrey Kozlow; 2130 Taubman Center; 936-5895
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 50
On-Call Responsibility: Every seven days
Where to Report First Day of Clerkship: 2130 Taubman Center; 7:00 a.m.

Objectives:

Additional Objectives
Please refer to SubI objectives in the Subinternship section of the M4 Handbook.

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<td>Emergency Department Clinical Care</td>
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<td>Service Learning</td>
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Course Description:

Sub-internship in plastic surgery. Course designed for those considering career in plastic surgery and for students seeking to refine their surgical skills. Emphasis on active participation in surgical procedures and patient care. Learning objectives include management of acute and chronic wounds; options for reconstruction of congenital and acquired soft tissue defects; basic operative techniques (e.g. suturing); evaluation and management of unique problems. Sub-interns will join two of our four primary teams (Adult RED, Adult BLUE, HAND, or Pediatric/Craniofacial GOLD) at the University hospital spending two weeks per team. We have found that this schedule has allowed for visiting students to have enough time on a given service to optimize the educational experience and exposure to our faculty/residents while also allowing visiting students to see more than one facet of our program. Sub-interns will spend an average of 3-4 days per week in the operating room and 1-2 days per week in clinic. This balance allows for some continuity of care along with direct interaction with faculty. Sub-interns will participate in all educational conferences throughout the week. Additional sub-intern only teaching sessions and/or occasional breakfasts also occur. No formal presentations are required; however, many sub-interns will take the opportunity to present at our monthly journal club. Call is taken over the four week period including one Friday/Sunday (until 6PM) weekend call and one Saturday weekend call. Sub-interns do not take call during the week due to our night float resident system.
Thoracic Sub I, UMH

COURSE ID: 044068
SUBJECT: SURGERY
CATALOG NUMBER: 701THRI.U

Requirements Designation: Sub I, Clinical
Instructors: Andrew Chang, Jules Lin, Mark Orringer, Rishi Reddy, Bill Lynch, Phil Carrott
Course Contact: Jules Lin, M.D.
Site Coordinator: Angela Cloutier
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 8
On-Call Responsibility: occurs every 3 days (Home Call)
Where to Report First Day of Clerkship: 7:00 am, Jules Lin, MD, 2120 TC (Thoracic Surgery Offices)
Keywords: General Thoracic Surgery; Chest Surgery; Thoracic Surgery

Objectives:

Additional Objectives

Please refer to SubI objectives in the Subinternship section of the M4 Handbook.

Distribution of Student's Time:

70 % Inpatient Clinical Care
25 % Outpatient Clinical Care
5 % Conferences/Lectures/Seminars

Course Description:

Students will be exposed to the breadth of patients with general thoracic surgical diseases including, pulmonary and esophageal tumors, chest wall tumors, benign esophageal disease, pulmonary insufficiency, and abnormalities of the airway. They will be involved with the diagnosis and management of these problems. They will participate in the operations used to treat these conditions: esophageal and pulmonary resections, anti-reflux surgery, esophagomyotomy, lung volume reduction surgery for emphysema, lung transplantation, chest wall resection and reconstruction, thoracoscopic and robotic approaches to thoracic surgery, and endoscopic esophageal and airway interventions stents, dilatation, and laser therapy. They will be expected to participate in the operating rooms, the inpatient care unit, and the clinic and acquire a variety of surgical skills including but not limited to skin suturing, insertion of chest tubes, surgical knot-tying, and assisting at endoscopies. As subinterns, students will have the opportunity to see consults and staff patients with attendings as well as being first call for their patients for several days during the rotation. Students will be expected to make one 15-20 minute presentation to the faculty and staff on a thoracic surgery topic which will be determined in collaboration with one of the faculty mentors.
Surgery - UMH

COURSE ID: 042484  SUBJECT: SURGERY  CATALOG NUMBER: 701TSPI.U

Requirements Designation: Sub I, Clinical
Instructors: Drs. Woodside, Punch, Magee, Sung, Welling, Sonnenday, Englesbe
Course Contact: Chris Sonnenday, M.D.
Site Coordinator: Darlene Elam and Crystal Kirklin
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 100
On-Call Responsibility: Every 4 days
Where to Report First Day of Clerkship: show up at SICU (5D Main Hospital) at 6:00 a.m. for rounds. Contact Dr. Sonnenday and STX fellow ideally the day prior to beginning the rotation

Objectives:
Additional Objectives
Please refer to SubI objectives in the Subinternship section of the M4 Handbook.

Distribution of Student's Time:
- 70 % Inpatient Clinical Care
- 15 % Outpatient Clinical Care
- 5 % Conferences/Lectures/Seminars
- 5 % Emergency Department Clinical Care
- 5 % Service Learning

Course Description:
Students will have the opportunity to experience all aspects of transplantation practice. This includes evaluation of potential liver, kidney and pancreas transplant recipients; understanding of pathophysiology of end-stage organ failure; participation in all aspects of donor and recipient operative transplant surgery; active involvement in post transplant surgical care, including management of immunosuppression and its complications; long term post transplant outpatient care; understanding of immunosuppressive therapies, complications, side effects, and associated infections and neoplastic morbidity.

In addition, the student will participate in the continuum of care for other surgical patients cared for on the transplant surgery service, including patients with hepatobiliary disease and malignancy, portal hypertension, transplant patients with general surgery problems, and patients in need of dialysis access.
Vascular Surgery, UMH

COURSE ID: 042477  SUBJECT: SURGERY  CATALOG NUMBER: 701VASI.U

Requirements Designation: Sub I, Clinical

Special Instructions: Please note that the SVA service will continue to welcome one internal sub-intern on any given month. We would also like to welcome an additional external M4 during the high-yield months summer months for those external candidates interested in our integrated vascular surgery residency.

Instructors: Drs. Stanley, Wakefield, Henke, Eliason, Gallagher, Coleman and Osborne

Course Contact: Contact Dr. Osborne, nichosbo@med.umich.edu, if your interested in the rotation.

Duration: 4 weeks

Grading Basis: Graded (H, HP, P, F)

Avg # of Patients Seen Each Week: 20-40

On-Call Responsibility: Per staff

Where to Report First Day of Clerkship: Contact the senior vascular surgery resident/fellow on call to report for duty. May also contact Dr. Osborne’s assistant, Pamela Moss for additional information of the rotation.

Objectives:

Additional Objectives
Please refer to Subl objectives in the Subinternship section of the M4 Handbook.

Distribution of Student’s Time:

65 % Inpatient Clinical Care
20 % Outpatient Clinical Care
10 % Emergency Department Clinical Care
5 % Conferences/Lectures/Seminars

Course Description:

This clerkship is designed to provide subinternship experience and a concentrated exposure to vascular surgery and medicine for senior medical students. Students share primary responsibility for all aspects of patient management and participate in both major and minor surgical procedures. The student will assist in the operating room, see new consults and be exposed to a wide variety of vascular surgical patients in our clinic. While on the in patient ward the 4th year students will participate in patient management and assist in all aspects of direct patient care. Should the student wish, they can also be called in after-hours for emergent surgical cases during the rotation.

This is an excellent experience for students who plan a career in surgery and this exposure can lead to additional academic experiences long-term with the faculty.
Surgery - UMH

COURSE ID: 032668  SUBJECT: SURGERY  CATALOG NUMBER: 801TRAI.U

Requirements Designation: Sub I / ICU, Sub I, Clinical

Instructors: Drs. Cherry-Bukowiec, Hemmila, Machado, Mallat, Napolitano, Park, Raghavendran, To, Wang, Waljee, and Alam

Course Contact: Dr. Machado-Aranda, dmachad@med.umich.edu

Site Coordinator: Kimberly Bologna, kabolog@med.umich.edu

Duration: 4 weeks

Grading Basis: Graded (H, HP, P, F)

Avg # of Patients Seen Each Week: 10-30 Inpatient

On-Call Responsibility: Night Float System based on Intern Schedule and Duty hour restrictions

Where to Report First Day of Clerkship: University Hospital, Floor I; Trauma Burn Center; 6:00 a.m.

Contact Rachel McCormick/Marta Gruca the week before @ 936-2661.

Objectives:

Clerkship Objectives
Understand and participate in trauma and burn resuscitations, evaluation and treatment of the acute abdomen and abdominal pain, basic principles of critical care

Additional Objectives
Please refer to SubI objectives in the Subinternship section of the M4 Handbook.

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<td>Independent Study</td>
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Course Description:

This is an in-house ICU call service that manages critically ill patients with acute care surgery problems including trauma, burn, emergency and elective general surgery patients. During the course students will spend the majority of their time learning about and caring for critically ill surgery patients in the Trauma/Burn ICU. They will become an integrated and valued member of the Acute Care Surgery team where they will be exposed to a collaborative, multi-disciplinary approach to patient care with extensive interaction among the Emergency Department, ICU, OR, rehabilitation medicine, physical therapy, occupational therapy, discharge planning services, pharmacy, nutritional services, social services, and other subspecialty medical and surgical services. This rotation is ideal for students who wish to learn more about surgical illness and injury, how to function as an intern, how to manage critically ill surgical patients and surgical emergencies, and how to interact collegially and effectively on a fast-paced service with limitless educational opportunities.
E:Surgery, Urological, UMH

COURSE ID: 032690   SUBJECT: UROLOGY   CATALOG NUMBER: 703URSP.U

Requirements Designation: Sub I, Clinical
Instructors: Urology Faculty
Course Contact: Dr. Anne Pelletier-Cameron, 2325 Taubman Health Center
Duration: 4 weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 25
On-Call Responsibility: None
Where to Report First Day of Clerkship: Urology Conference Room # 3643 @ 8:30 a.m. Clerkship Coordinator: Erica Breen, 734-936-5801 ericalbr@med.umich.edu

Objectives:
Additional Objectives
Please refer to SubI objectives in the Subinternship section of the M4 Handbook.

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Course Description:
The object of the urology course is to expose the student to a broad spectrum of urologic problems. The basic pathophysiology of urologic disease is stressed. The student may choose between four adult urology services and the pediatric urology service. Conferences with the staff and teaching rounds are integrated into the program. Fourth year students applying to a urology residency program or with a strong interest in urology will be required to write a paper or give a presentation at Grand Rounds. Prospective topics suitable for presentation can be discussed with any of the urology faculty.