University of Michigan Medical School

Visiting Students Elective Catalog 2017-18

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

COURSE ID: 031035  SUBJECT: ANESTH  CATALOG NUMBER: 001ADVP.U

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.

Assessments:

How Students Will Be Evaluated
- Quality of care given.
- Participation and performance in conferences.
- Level of knowledge including new knowledge.
- Level of skills.

Methods To Be Used In Student Evaluation Include
- Observation of performance by faculty.
- Observation of performance by house officers.
- Oral test.
- Written case report.

Distribution of Student's Time:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 %</td>
<td>Inpatient Clinical Care</td>
</tr>
<tr>
<td>20 %</td>
<td>Outpatient Clinical Care</td>
</tr>
<tr>
<td>15 %</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
<tr>
<td>10 %</td>
<td>Independent Study</td>
</tr>
<tr>
<td>5 %</td>
<td>Simulation</td>
</tr>
</tbody>
</table>

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

E: Anesthesiology, Pediatric, UMH

COURSE ID: 031059
SUBJECT: ANESTH
CATALOG NUMBER: 001PEDI.U

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)
Avg # of Patients Seen Each Week: 15
On-Call Responsibility: No call or once during the rotation
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

Assessments:
- Student Assessment
  - Contact Faculty Preceptor

Distribution of Student's Time:
- 50 % Inpatient Clinical Care
- 20 % Conferences/Lectures/Seminars
- 20 % Outpatient Clinical Care
- 10 % Independent Study

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.
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.

Assessments:

How Students Will Be Evaluated
Quality of care given (including clinical judgment).
Participation and performance in conferences.
Level of knowledge (including new knowledge).
Ability to interact with other health care professionals as part of a team.

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty.
Observation of performance by house officers.
Assessment of write-ups/reports.

Distribution of Student's Time:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 %</td>
<td>Outpatient Clinical Care</td>
</tr>
<tr>
<td>30 %</td>
<td>Inpatient Clinical Care</td>
</tr>
<tr>
<td>20 %</td>
<td>Independent Study</td>
</tr>
<tr>
<td>10 %</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
</tbody>
</table>

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

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.

Assessments:

How Students Will Be Evaluated
Quality of care given (including clinical judgment).
Participation and performance in conferences.
Level of knowledge (including new knowledge).
Level of skills.

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty.
Observation of performance by house officers.
Assessment of case write-up.
Oral exam.

Distribution of Student’s Time:

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

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

Course Contact: Thy Thy Do, M.D.; 1910 Taubman Health Center; 936-4192
Site Coordinator: Jackie Giletto; 936-4192
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.

Assessments:
How Students Will Be Evaluated
Quality of care given (including clinical judgment).
Participation and performance in conferences.
Level of knowledge (including new knowledge).
Level of skills.
Presentation.

Methods To Be Used In Student Evaluation Include
Observation of performance by house officers.
Observation of performance by faculty.
Oral presentations.

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.

Distribution of Student's Time:

<table>
<thead>
<tr>
<th>Time Distribution</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outpatient Clinical Care</td>
<td>85%</td>
</tr>
<tr>
<td>Conferences/Lectures/Seminars</td>
<td>10%</td>
</tr>
<tr>
<td>Inpatient Clinical Care</td>
<td>5%</td>
</tr>
</tbody>
</table>
Wilderness Medicine, UMH

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

Instructors:  Nate Brouwer, MD, nbrouwer@med.umich.edu and senior EM house officers

Course Contact:  Nate Brouwer, MD; nbrouwer@med.umich.edu

Site Coordinator:  Kailey Bartrum; bartrumk@med.umich.edu

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 other overnight camping trips, Caving, and MedWars which are required

Where to Report First Day of Clerkship:  B1380 Taubman Canter. University of Michigan. TIME: 9:00 AM. Make sure to check email from Kailey Bartrum 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.

Assessments:

Students Will Be Evaluated On Each Of The Following:

- quality of care given (including clinical judgment)
- participation and performance in conferences
- level of knowledge (including new knowledge)
- level of skills other: Team work and team leadership

Methods To Be Used In Student Evaluation Include:

- Observation of performance by faculty, observation of performance by house officers, and assessment of write-ups/reports written/oral tests other structured skills testing.

*Special Instructions:

This rotation requires a $550 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. There are 8 days spent in the Upper Peninsula as well as one overnight camping trip and MedWars that are required.

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 simulated patient assessment, treatment, evacuation, and field skills. Students must participate in the regional MedWars competition and Caving trip. An evidenced-based case presentation is required at the end of the rotation. There is an overnight camping trip as part of the practical portion of the final exam, as well as a final multiple question examination covering the reading material and lectures which are also a required 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.

Distribution of Student's Time:

- 50 %  Conferences/Lectures/Seminars
- 20 %  See course description below.
- 20 %  Clinical Research
- 10 %  Independent Study
Emergency Medicine - UMH

EM Critical Care Elec, UMH

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

Instructors:           Michael Cole, MD
Site Coordinator:     Kailey Bartrum, Email: bartrumk@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: None
Where to Report First Day of Clerkship: Emergency Medicine South Offices; Taubman Center B1-380; Time: 9:00am; Contact: Kailey Bartrum

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.

Assessments:
Students Will Be Evaluated On Each Of The Following
Quality of care given (including clinical judgment), the number of patients given care participation and performance in conferences level of knowledge (including new knowledge) level of skills.

Student Assessment
All students will be assessed by faculty members, in conjunction with input from fellows, house staff and nursing and allied health care personnel, to ensure that the following course objectives have been achieved. The student is:
1) Capable of critically evaluating medical data, both clinical and laboratory, routinely available in the critical care setting,
2) Diagnosing the condition of a patient on the basis of such data, and
3) Synthesizing a comprehensive plan of management for that condition.
4) The student is familiar with the many techniques and medications required for treatment of the critically ill patient.
5) The student has attended conferences and lectures, and participated in patient care, in a manner consistent with achieving the objectives of the course.

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty, observation of performance by house officers, and assessment of write-ups/reports other structured skills testing.

Distribution of Student's Time:

- 85% Emergency Department Clinical Care
- 15% Conferences/Lectures/Seminars

Course Description:
This elective will focus on the initial stabilization and subsequent resuscitative care of critically ill 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. Emphasis will be on undifferentiated, critically ill patients who require intensive, emergent care. Students will work day and night clinical shifts in EC3 (12 hours/shift), receive core content lectures from EC3 faculty and fellows, take part in an intensive, formative simulation experience, present patients at the end-of-rotation conference, receive simulated procedural training and will have access to UMHS emergency medicine residency didactics.
Emergency Medicine - UMH

COURSE ID: 031115  SUBJECT: EMERGMD  CATALOG NUMBER: 005MEDO.U

Course Contact: Joe House, MD; B1380 Taubman Center, Box 5305, 734-763-1271
Site Coordinator: Kailey Bartrum; bartrumk@med.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.

Assessments:
How Students Will Be Evaluated
Quality of care given (including clinical judgment).
Participation and performance in conferences.
Level of knowledge (including new knowledge).
Level of skills.
Attendance and performance in skills labs.
Shift performance reports from faculty/resident observation.
Final exam
Professional Behavior
Performance will be assessed mid-way through the rotation
Direct Observation of history and physical exam and patient communication related to abdominal pain
CLTP patient log

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.

Distribution of Student's Time:
80 % Emergency Department Clinical Care
10 % Conferences/Lectures/Seminars
10 % Simulation
Family Medicine - UMH

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

Course Contact: Kent J. Sheets, PhD; M7300 Medical Science I/SPC 5625; 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

Assessments:

How Students Will Be Evaluated
- Quality of care given (including clinical judgment).
- Participation and performance in conferences.
- Level of knowledge (including new knowledge).
- Level of skills.
- Ability to interact professionally with patients and work with other health care providers.

Methods To Be Used In Student Evaluation Include
- Observation of performance by faculty.
- Observation of performance by house officers.
- Assessment of write-ups/reports.

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.
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.

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.

Assessments:
How Students Will Be Evaluated
Quality of care given (including clinical judgment).
Participation and performance in conferences.
Level of knowledge (including new knowledge).
Level of skills (including thyroid exam and diabetic foot exam).

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty.
Observation of performance by house officers.
Assessment of write-ups/reports.

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.
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.

Assessments:

How Students Will Be Evaluated
- Quality of care given (including clinical judgment).
- The number of patients given care.
- Participation and performance in conferences.
- Level of knowledge (including new knowledge).
- Level of skills.

Methods To Be Used In Student Evaluation Include
- Observation of performance by faculty.
- Observation of performance by house officers.
- Assessment of write-ups/reports.
- Written/oral tests.

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.
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.

Assessments:

How Students Will Be Evaluated

Quality of care given (including clinical judgment).
The number of patients given care.
Participation and performance in conferences.
Level of knowledge (including new knowledge).
Level of skills.

Methods To Be Used In Student Evaluation Include

Observation of performance by faculty.

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.
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.

Assessments:

How Students Will Be Evaluated
Quality of care given (including clinical judgment).
Participation and performance in conferences.
Level of knowledge (including new knowledge).

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty.
Observation of performance by house officers.
Assessment of write-ups/reports.

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.

Distribution of Student's Time:

45 % Inpatient Clinical Care
45 % Outpatient Clinical Care
5 % Conferences/Lectures/Seminars
5 % Simulation
E:Medicine, Allergy, UMH

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

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.

Assessments:

How Students Will Be Evaluated

Quality of care given (including clinical judgment).
The number of patients given care.
Participation and performance in conferences.
Level of knowledge (including new knowledge).

Methods To Be Used In Student Evaluation Include

Observation of performance by faculty.
Assessment of write-ups/reports.
Didactic Examination.

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.
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.

Assessments:

How Students Will Be Evaluated
- Quality of care given (including clinical judgment).
- Participation and performance in conferences.
- Level of knowledge (including new knowledge).
- Level of skills.
Methods To Be Used In Student Evaluation Include
Observation of performance by faculty.
Observation of performance by house officers.
Assessment of write-ups/reports.

Distribution of Student's Time:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>75 %</td>
<td>Inpatient Clinical Care</td>
</tr>
<tr>
<td>20 %</td>
<td>Outpatient Clinical Care</td>
</tr>
<tr>
<td>5 %</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
</tbody>
</table>

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 member.
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.

Assessments:
How Students Will Be Evaluated
Quality of care given (including clinical judgment).
Participation and performance on rounds.
Level of knowledge (including new knowledge).

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty.
Observation of performance by house officers.
Assessment of write-ups/reports.

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 new patients per week throughout the course of the rotation.
### Internal Medicine – UMH

**Pulmonary Consults, UMH**

<table>
<thead>
<tr>
<th>COURSE ID: 031659</th>
<th>SUBJECT: INTMED</th>
<th>CATALOG NUMBER: 010PULI.U</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Instructors:</strong></td>
<td>Pulmonary Faculty</td>
<td></td>
</tr>
<tr>
<td><strong>Course Contact:</strong></td>
<td>Dr. Cyril Grum, 936-1221</td>
<td></td>
</tr>
<tr>
<td><strong>Site Coordinator:</strong></td>
<td>Dr. Cyril Grum, <a href="mailto:grum@umich.edu">grum@umich.edu</a></td>
<td></td>
</tr>
<tr>
<td><strong>Duration:</strong></td>
<td>4 weeks</td>
<td></td>
</tr>
<tr>
<td><strong>Grading Basis:</strong></td>
<td>Graded (H, HP, P, F)</td>
<td></td>
</tr>
<tr>
<td><strong>On-Call Responsibility:</strong></td>
<td>No Call</td>
<td></td>
</tr>
<tr>
<td><strong>Where to Report First Day of Clerkship:</strong></td>
<td>3916 Taubman Health Center; 8:00 a.m.</td>
<td></td>
</tr>
</tbody>
</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.

- **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.

**Assessments:**

- **How Students Will Be Evaluated**
  - Quality of care given (including clinical judgment).
  - Participation and performance in conferences.
  - Level of knowledge (including new knowledge).
  - Level of skills.

- **Methods To Be Used In Student Evaluation Include**
  - Observation of performance by faculty.
  - Observation of performance by house officers.
  - Assessment of write-ups/reports.

**Distribution of Student's Time:**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>85 %</td>
<td>Inpatient Clinical Care</td>
</tr>
<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

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.

Assessments:
How Students Will Be Evaluated
Quality of care given (including clinical judgment).
The number of patients given care.
Level of knowledge (including new knowledge).

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty.
Observation of performance by house officers.
Assessment of write-ups/reports.

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.

Distribution of Student's Time:
60 % Inpatient Clinical Care
30 % Outpatient Clinical Care
10 % Conferences/Lectures/Seminars
Neurosurgery Sub I, UMH

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

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.

Assessments:

How Students Will Be Evaluated

History and Interview
Physical Examination
Differential Diagnosis / Problem List
Diagnostic / Therapeutic Planning
Procedural Skills
Knowledge
Self-Education
Written Skills
Oral Presentations
Interpersonal Skills with Patients and other Physicians

Methods To Be Used In Student Evaluation Include

Observation of performance by faculty
Observation of performance by house officers
Assessment of write-ups/reports

Distribution of Student's Time:

60%  Inpatient Clinical Care
20%  Outpatient Clinical Care
10%  Conferences/Lectures/Seminars
10%  Emergency Department Clinical Care

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/PoerPoint 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)
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)
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

Assessments:

How Students Will Be Evaluated
- Quality of care given (including clinical judgment)
- Participation and performance in conferences
- Level of knowledge (including new knowledge)
- Level of skills

Methods To Be Used In Student Evaluation Include
- Observation of performance by faculty
- Observation of performance by house officers/fellows
- Assessment of write-ups/reports

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.
Assessments:

How Students Will Be Evaluated
- Quality of care given (including clinical judgment)
- Participation and performance in conferences
- Level of knowledge (including new knowledge).
- Level of skills.

Methods To Be Used In Student Evaluation Include
- Observation of performance by faculty.
- Observation of performance by house officers.
- Assessment of write-ups/reports

Distribution of Student’s Time:
- 55 % Outpatient Clinical Care
- 40 % Inpatient Clinical Care
- 5 % Conferences/Lectures/Seminars

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, UMHH

COURSE ID: 041123

SUBJECT: OBSTGYN

CATALOG NUMBER: 702MFMLU

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: Rachel Sprovtsoff, Clerkship Coordinator L3001 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.

Assessments:

How Students Will Be Evaluated

Level of knowledge (including new knowledge).

Level of skills.

Methods To Be Used In Student Evaluation Include

Observation of performance by faculty.

Observation of performance by house officers.

Distribution of Student's Time:

90 % Inpatient Clinical Care

10 % Conferences/Lectures/Seminars

Course Description:

The student will function as a sub-intern 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 house staff evaluation of participation, skills, fund of knowledge, and attitude.
Ophthalmology - UMH

E:Ophthalmology, Clinical, UMH

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

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: This is offered to students for their educational benefit, but not required.

Where to Report First Day of Clerkship: Informational email will be sent to enrolled students by the clerkship coordinator.

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.

Assessments:

- How Students Will Be Evaluated
  - Daily attendance and level of participation. Performance on end of rotation written exam. Students interested in ophthalmology as a career choice taking the rotation in May through August will give an oral presentation at the end of the rotation.

- Methods To Be Used In Student Evaluation Include
  - Observation of performance by faculty and house officers. Written exam and oral presentation (when applicable).

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 during Periods 1-4. The focus of the Period 1-4 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 request time within the subspecialty services at KEC, VA Hospital, or a dedicated week in the OR observing the various surgical procedures performed. Students will learn to take an ophthalmic history, learn basic ophthalmic terminology, and examination techniques. A typical day begins at 7:00am with student-directed lectures on most mornings, 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 1-4 are required to prepare a presentation given to the clerkship director and other students at the end of the rotation.

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 1-4 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. Observational experience in the operating room is an opportunity 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 intends to pursue an honors grade.
Orthopaedic Surgery - UMH

E:Surgery, Orthopedic, UMH

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

Assessments:

How Students Will Be Evaluated
Quality of care given (including clinical judgment).
Participation and performance in conferences.
Level of knowledge (including new knowledge).
Level of skills.

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty.
Observation of performance by house officers.
Written/oral tests.

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.

Distribution of Student's Time: 50 % Inpatient Clinical Care
40 % Outpatient Clinical Care
10 % Conferences/Lectures/Seminars
Course Contact: Jeffrey S. Moyer, MD, FACS
Site Coordinator: Roberta Wilcox
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, Roberta Wilcox, 1 week prior to your rotation with a schedule and instructions. Questions and/or concerns should be directed to robewilc@med.umich.edu or 734-936-8001.

Objectives:

Additional Objectives
Please refer to SubI objectives in the Sub-internship section of the M4 Handbook.

Assessments:

How Students Will Be Evaluated
Quality of care given (including clinical judgment)
The number of patients given care
Participation and performance in conferences
Level of knowledge (including new knowledge)
Level of skills
Other: technical skill in OR (ie suturing)

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty
Observation of performance by house officers
Assessment of write-ups/reports
Other structured skills testing

Distribution of Student’s Time:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 %</td>
<td>Inpatient Clinical Care</td>
</tr>
<tr>
<td>20 %</td>
<td>Outpatient Clinical Care</td>
</tr>
<tr>
<td>10 %</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
<tr>
<td>10 %</td>
<td>Independent Study</td>
</tr>
</tbody>
</table>

Course Description:
The sub-internship in Otolaryngology-Head and Neck Surgery has been designed for those students who want a comprehensive clinical experience with exposure to diagnosis and management of a spectrum of problems (from simple to complex) in the field of Otolaryngology-Head and Neck Surgery. Medical students will participate in outpatient clinics, inpatient rounds and operative procedures. Students will be expected to adequately prepare for these activities through the appropriate use of medical literature and other learning experiences. The overall goals of the elective will be tailored

The student will be expected to take call with the resident throughout the rotation to gain experience in the management of common emergencies. In addition to those students preparing for a career in Otolaryngology-Head and Neck Surgery, this would be a useful experience for any student interested in a primary care field or in a specialty area involving head and neck.
E: Pathology, General, UMH

COURSE ID: 032312  SUBJEC'T: PATH  CATALOG NUMBER: 001CLNL.U

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

Assessments:

How Students Will Be Evaluated

Faculty and resident observation including:

Demonstrated medical knowledge and growth.

Ability to interpret and integrate morphologic findings and laboratory data in clinical decision making and patient care.

Professional behavior, including ability to function as a member of the health care team.

Formal and informal case and conference presentations.

Performance of required formal paper or conference presentation on a topic of the student's choosing with approval of the faculty mentor.

Grades of Honors and High Pass to be determined by successful completion of a variety of anatomic and clinical pathology activities such as specimen grossing, individual case preview, laboratory activities, and autopsy. Actual activities to be tailored to interests of the participating student.

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, cytology, and clinical chemistry.
## Pathology - UMH

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

**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

### Assessments:

**How Students Will Be Evaluated**

Faculty and resident observation including:

- Demonstrated medical knowledge and growth.
- Ability to interpret and integrate morphologic findings and laboratory data in clinical decision making and patient care.
- Professional behavior, including ability to function as a member of the health care team.
- Formal and informal case and conference presentations.
- Performance of required formal paper or conference presentation on a topic of the student's choosing with approval of the faculty mentor.

Grades of Honors and High Pass to be determined by successful completion of a variety of anatomic and clinical pathology activities such as specimen grossing, individual case preview, laboratory activities, and autopsy. Actual activities to be tailored to interests of the participating student.

### 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>
</tr>
<tr>
<td>45%</td>
<td>Outpatient Clinical Care</td>
</tr>
<tr>
<td>10%</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
</tbody>
</table>

### 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 student's specific subspecialty pathology interest (e.g. dermatopathology, hematopathology, surgical pathology, microbiology, etc). The 4-week course is designed for the student to focus on a specific subspecialty area in pathology.
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.

Assessments:

How Students Will Be Evaluated
- Quality of care given (including clinical judgment).
- Participation and performance in conferences.
- Level of knowledge (including new knowledge).
- Level of skills.

Methods To Be Used In Student Evaluation Include
- Observation of performance by faculty.
- Observation of performance by house officers.
- Assessment of write-ups/reports.
- Other structured skills testing.

Course Description:
The M4 will see patients in outpatient pediatric 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

Distribution of Student's Time:
- 80 % Outpatient Clinical Care
- 15 % Conferences/Lectures/Seminars
- 5 % Independent Study
**Objectives:**

To Enhance Knowledge And Skills Pertaining To

- Interviewing, physical examination and other patient interactions.
- Interpretation of data.
- Clinical judgment.

**Assessments:**

How Students Will Be Evaluated

- Quality of care given (including clinical judgment).
- Participation and performance in conferences.
- Level of knowledge (including new knowledge).
- Level of skills

Methods To Be Used In Student Evaluation Include

- Observation of performance by faculty.
- Assessment of write-ups/reports.

**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.

**Distribution of Student's Time:**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>70 %</td>
<td>Outpatient Clinical Care</td>
</tr>
<tr>
<td>25 %</td>
<td>Independent Study</td>
</tr>
<tr>
<td>5 %</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
</tbody>
</table>
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.

Assessments:

How Students Will Be Evaluated
Quality of care given (including clinical judgment).
Participation and performance in conferences.
Level of knowledge (including new knowledge).

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty.
Observation of performance by house officers.

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

Distribution of Student's Time:

90 %  Outpatient Clinical Care
5 %  Inpatient Clinical Care
5 %  Conferences/Lectures/Seminars
Pediatrics - UMH

COURSE ID: 032048  SUBJECT: PEDIAT  CATALOG NUMBER: 001HUML.U
Instructors: Pediatric Genetics Faculty
Course Contact: Dr. Shane C. Quinonez MD; squinon@med.umich.edu; 734-615-1203
Site Coordinator: Rachel Fisher
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: D5240 Medical Professional Building (MPB), 9:00 a.m.

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.

Assessments:

How Students Will Be Evaluated
- Quality of care given (including clinical judgment).
- Participation and performance in conferences.
- Level of knowledge (including new knowledge).
- Level of skills.

Methods To Be Used In Student Evaluation Include
- Observation of performance by faculty.
- Observation of performance by house officers.
- Assessment of write-ups/reports.

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.

Distribution of Student's Time:
- 50 % Outpatient Clinical Care
- 20 % Inpatient Clinical Care
- 15 % Independent Study
- 10 % Conferences/Lectures/Seminars
- 5 % Laboratory tours
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 patience

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.
Assessments:

Students Will Be Evaluated On Each Of The Following
- Observation of performance by faculty
- Logbook entries
- Assessment of write-ups/reports
- Written/oral tests

Distribution of Student's Time:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 %</td>
<td>Outpatient Clinical Care</td>
</tr>
<tr>
<td>20 %</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>
</tr>
</tbody>
</table>

Course Description:

Additionally, students will be expected to participate in a project of their choosing (e.g. presentation, case report, abstract, etc).
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.

Assessments:

How Students Will Be Evaluated
Quality of care given (including clinical judgment). Participation and performance in conferences. Level of knowledge (including new knowledge). Professionalism and interaction with ancillary personnel.

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty. Observation of performance by house officers. Assessment of write-ups/reports.

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 critical care nephrology. On the inpatient service, students will be expected to primarily follow 1-2 patients. 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.

Distribution of Student's Time:

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

Assessments:

How Students Will Be Evaluated
- Participation and performance in clinical presentations and conferences.
- Level of knowledge (in particular, new knowledge).

Methods To Be Used In Student Evaluation Include
- Observation of performance by faculty and fellows.
- Assessment of reports/presentations.

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 complex 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 10-15 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.

Distribution of Student's Time:

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

Assessments:

How Students Will Be Evaluated
- Quality of care given (including clinical judgment).
- Participation and performance in conferences.
- Level of knowledge (including new knowledge).
- Level of skills.

Methods To Be Used In Student Evaluation Include
- Observation of performance by faculty.
- Observation of performance by house officers.
- Assessment of write-ups/reports.
- Other structured skills testing

Distribution of Student's Time:

<table>
<thead>
<tr>
<th>%</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>Inpatient Clinical Care</td>
</tr>
<tr>
<td>35</td>
<td>Outpatient Clinical Care</td>
</tr>
<tr>
<td>10</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
<tr>
<td>10</td>
<td>Independent Study</td>
</tr>
<tr>
<td>10</td>
<td>Service Learning</td>
</tr>
</tbody>
</table>

Course Description:

The student will have the opportunity to see children with respiratory system diseases (e.g., asthma, cystic fibrosis, chronic lung disease of prematurity, chronic respiratory failure, chronic cough and wheeze) and observe diagnostic and therapeutic approaches. There is particular emphasis on establishing a partnership between physicians and families.
Peds Hematology, Oncology, UMH

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

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

Assessments:
How Students Will Be Evaluated
   - Quality of care given (including clinical judgment)
   - Level of knowledge (including new knowledge)
   - Level of skills

Methods To Be Used In Student Evaluation Include
   - Observation of performance by faculty
   - Assessment of write-ups/reports

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 to experience the psychosocial aspects of chronic illness. Students will also be involved in the care of various chronic hematologic conditions such as sickle cell disease and hemophilia etc. Students will also get competence in the review of blood and bone marrow morphology by reviewing the peripheral blood and bone marrow smears.

1. Patient care: Students will increase their knowledge base and will develop competence in evaluating, diagnosing and managing common Pediatric heme-onc health issues including evaluation of common conditions such as anemia, sickle cell disease, new child cancer diagnosis, immunodeiciencies, management of pain, principles of transfusions etc.
2. Medical Knowledge: Students will learn about common blood disorders and cancers in pediatric patients and side effects of common chemotherapeutic agents. Students 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
   * Work with nursing discharge-planning coordinators to smooth transition of care to the home setting (e.g. for febrile neutropenic patients requiring home antibiotics)
   * Demonstrate sensitivity and skill in dealing with dying patients

Distribution of Student's Time:
80 %  Inpatient Clinical Care
10 %  Conferences/Lectures/Seminars
10 %  Independent Study
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.

Assessments:

How Students Will Be Evaluated
Quality of care given (including clinical judgment)
Level of knowledge (including new knowledge)

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty
Observation of performance by fellows

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 to two half-day per week seeing patients in the Pediatric Infectious Diseases Outpatient Clinic.

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.

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 students in preparing and delivering a short presentation (10 min, powerpoint format) at the Pediatric Infectious Diseases Clinical Conference near the end of their rotation month on an interesting topic or clinical question they encountered during their month on the Peds ID service.

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 at a major pediatric referral hospital and medical center.

Distribution of Student’s Time:  
50 % Inpatient Clinical Care
20 % Independent Study
20 % Outpatient Clinical Care
10 % Conferences/Lectures/Seminars
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.

Assessments:

How Students Will Be Evaluated
Quality of care given (including clinical judgment).
Participation and performance in conferences.
Level of knowledge (including acquisition of new knowledge).

Methods To Be Used In Student Evaluation Include
Direct observation of performance by faculty.
Assessment of patient care notes.
Assessment of brief journal club presentation.

Course Description:

Students will function as house officers, evaluating patients with musculoskeletal complaints and suspected inflammatory/autoimmune diseases in the Pediatric Rheumatology Clinic. Students will work one-on-one with each of 5 different attendings, obtaining exposure to many different teaching and 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 gain skills related to the evaluation of patients seen in the Pediatric Rheumatology Clinic, particularly focusing on the effective use of laboratory tests and imaging. Students will also acquire knowledge about the diagnosis and initial outpatient management of common rheumatologic disorders, such as juvenile idiopathic arthritis, systemic lupus erythematosus, juvenile dermatomyositis, systemic vasculitides, and other connective tissue diseases. If possible, students will have the opportunity to perform arthrocentesis and intraarticular injection of steroids (most likely into the knee).

In addition to 5-7 half-day clinic sessions per week, students will have 1 half-day per week to attend the Pediatric Rheumatology Division meeting, which includes both administrative and educational topics. The remaining 2-4 half-days per week are used as reading time. Students are released from clinical responsibilities to attend the General Pediatrics Residency program educational conferences (8:00-9:00 AM, 12:00-1:00 PM each weekday).

Distribution of Student's Time:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>70%</td>
<td>Outpatient Clinical Care</td>
</tr>
<tr>
<td>20%</td>
<td>Independent Study</td>
</tr>
<tr>
<td>10%</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
</tbody>
</table>
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.

Assessments:
How Students Will Be Evaluated
Quality of care given (including clinical judgment).
Level of knowledge (including new knowledge).

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty.
Observation of performance by house officers.
Assessment of write-ups/reports.

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

Distribution of Student's Time:
40 % Inpatient Clinical Care
40 % Outpatient Clinical Care
20 % Conferences/Lectures/Seminars
Consultation, Liaison, UMH

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

Instructors: Amy Rosinski, MD; Lisa Seyfried, MD; Charles Surber MD
Course Contact: Amy Rosinski, MD
Site Coordinator: Sara Adkins
Duration: 4 Weeks
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 8-10
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.

Assessments:

Students Will Be Evaluated On Each Of The Following
Quality of care given (including clinical judgment)
The number of patients given care
Participation and performance in conferences
Level of Knowledge (including new knowledge)
Level of skills

Student Assessment
Students will be graded on their interactions with patients and families, oral presentations, written consultation assessments, active participation in team-based patient care and their consultation liaison psychiatry knowledgebase.

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty
Observation of performance by house officers
Logbook entries
Assessment of Write ups/reports

Distribution of Student's Time:

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

Assessments:
How Students Will Be Evaluated
Quality of care given (including clinical judgment).
Participation and performance in conferences.
Level of knowledge (including new knowledge).
Level of skills.
Interpersonal relationships.

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty.
Observation of performance by house officers.
Assessment of write-ups/reports.

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.

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

Assessments:

How Students Will Be Evaluated
  Quality of care given (including clinical judgment).
  Level of knowledge (including new knowledge).
  Level of skills.
  The number of patients given care.

Methods To Be Used In Student Evaluation Include
  Observation of performance by faculty.
  Observation of performance by house officers.
  Assessment of write-ups/reports.
  Written/oral tests.
  Case Report.
  Observation of other clinical staff.

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

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: Resident work room on 9D at 8 am on first day of rotation. 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

Assessments:

How Students Will Be Evaluated
- Quality of care given (including clinical judgment)
- Level of knowledge (including new knowledge)
- Level of skills

Methods To Be Used In Student Evaluation Include
- Observation of performance by faculty
- Observation of performance by house officers
- Assessment of write-ups/reports
- Case presentations

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

E:Psychiatry, Geriatrics, Cmbination

COURSE ID: 032284  SUBJECT: PSYCHIAT  CATALOG NUMBER: 001GERP.X

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.

Assessments:

How Students Will Be Evaluated

Quality of care given (including clinical judgment).

Level of knowledge (including new knowledge).

Methods To Be Used In Student Evaluation Include

Observation of performance by faculty. Observation of performance by house officers Assessment of write-ups/reports.

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.

Distribution of Student's Time:

50 % Outpatient Clinical Care

20 % Community resources, long-term care, including dementia

10 % Inpatient Clinical Care

10 % Conferences/Lectures/Seminars

10 % Independent Study
Psychiatry – UMH

Alcohol, Subabuse, UMATS, UMH

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

Course Contact:                      Dr. Ed Journey
Duration:                            4 Weeks
Grading Information                 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 ejourney@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.

Assessments:

How Students Will Be Evaluated
Quality of care given (including clinical judgment).
Participation and performance in conferences.
Level of knowledge (including new knowledge).
Level of skills.

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty.
Assessment of write-ups/reports.
Case Report.

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

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.
Psychiatry - Combination

Peds Psychosomatics, UMH

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

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 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 in Taubman at 830 am and page the Child Psychiatry Fellow at pager 31045 or Dr. Malas at pager 19545.

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

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 to 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

Assessments:

Students Will Be Evaluated On Each Of The Following

Students will be evaluated on their interactions with patients and families, oral presentations, written consultation assessments, active participation in team-based patient care and their consultation liaison psychiatry knowledgebase. They will also be expected to complete a brief quality improvement project or review of the literature with guidance from Dr. Malas.

Methods To Be Used In Student Evaluation Include

Observation of performance by faculty, observation of performance by fellows, and assessment of write-ups/reports.

Distribution of Student's Time:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>75%</td>
<td>Inpatient Clinical Care</td>
</tr>
<tr>
<td>10%</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
<tr>
<td>10%</td>
<td>Service Learning</td>
</tr>
<tr>
<td>5%</td>
<td>Independent Study</td>
</tr>
</tbody>
</table>

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

Instructors: Dr. Ashish Wasnik
Course Contact: Dr. Leslie Quint
Site Coordinator: Amy Spencer, (734) 647-4144
Duration: 4 Weeks
Grading Basis: (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.

Assessments:

How Students Will Be Evaluated
Level of knowledge (including new knowledge).

Methods To Be Used In Student Evaluation Include
Active participation in interpretation sessions.
Written and oral scholarly presentation or teaching file materials.
Observation of performance by faculty and house officers.

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.

7:30am lecture sessions may be scheduled and required.

Distribution of Student's Time:

30 % Outpatient Clinical Care
25 % Inpatient Clinical Care
15 % Conferences/Lectures/Seminars
15 % Emergency Department Clinical Care
5 % Independent Study
5 % Clinical Research
5 % Service Learning
Radiology - UMH

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

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:

Objectives:
Learning Objectives
Contact Faculty Preceptor

Assessments:

Assessments:
How Students Will Be Evaluated
Participation in conferences, interesting case follow-ups and level of knowledge.

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty.

Distribution of Student's Time:

30 % Outpatient Clinical Care
20 % Emergency Department Clinical Care
20 % Inpatient Clinical Care
10 % Conferences/Lectures/Seminars
10 % Independent Study
5 % Clinical Research
5 % Service Learning

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.
Radiology - UMH

E: General Radiology, UMH

COURSE ID: 032363

Instructors:
Dr. Leslie Quint, Clerkship Director

SUBJECT: RADIOL

Course Contact:
Dr. Leslie Quint

CATALOG NUMBER: 001CLNP.U

Site Coordinator:
Amy Spencer, (734) 647-4144

Duration:
4 weeks

On-Call Responsibility:
None

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

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 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.

Objectives:

To Enhance Knowledge And Skills Pertaining To
Appropriate utilization of imaging and interpretation of images.

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

Assessments:

How Students Will Be Evaluated
Participation and performance in conferences, seminars, and weekly rotations.
Level of knowledge (including new knowledge).

Methods To Be Used In Student Evaluation Include
Evaluation of daily performance by faculty and house officers. Assessment of an oral ten (10) minute PowerPoint presentation.

Distribution of Student's Time:

<table>
<thead>
<tr>
<th>Time Distribution</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 %</td>
<td>Outpatient Clinical Care</td>
</tr>
<tr>
<td>25 %</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
<tr>
<td>20 %</td>
<td>Inpatient Clinical Care</td>
</tr>
<tr>
<td>20 %</td>
<td>Independent Study</td>
</tr>
</tbody>
</table>
Interventional Radiology, UMH

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

Instructors:                      Dr. Kyle Cooper

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: N/A

Where to Report First Day of Clerkship: Radiology Library, B1D411 University Hospital at 8:30 AM, report for orientation.

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.

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

Assessments:

How Students Will Be Evaluated
- Quality of care given (including clinical judgment)
- The number of patients given care
- Participation and performance in conferences
- Level of knowledge (including new knowledge)
- Level of skills
Methods To Be Used In Student Evaluation Include
Observation of performance by faculty
Observation of performance by house officers
Logbook entries
Assessment of write-ups/reports

Distribution of Student's Time:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 %</td>
<td>Outpatient Clinical Care</td>
</tr>
<tr>
<td>25 %</td>
<td>Inpatient Clinical Care</td>
</tr>
<tr>
<td>10 %</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
<tr>
<td>10 %</td>
<td>Emergency Department Clinical Care</td>
</tr>
<tr>
<td>5 %</td>
<td>Independent Study</td>
</tr>
<tr>
<td>5 %</td>
<td>Simulation</td>
</tr>
<tr>
<td>5 %</td>
<td>Service Learning</td>
</tr>
</tbody>
</table>
**Neuroradiology, UMH**

**COURSE ID: 032388**

**SUBJECT: RADIOL**

**CATALOG NUMBER: 001NEUP.U**

**Instructors:**
- Dr. Gaurang Shah
- Dr. Leslie Quint

**Course Contact:**
- Amy Spencer, (734) 647-4144

**Site Coordinator:**
- Amy Spencer

**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

**Assessments:**
- **How Students Will Be Evaluated**
  - Level of knowledge (including new knowledge).
  - Optional oral presentation or written project.
- **Methods To Be Used In Student Evaluation Include**
  - Observation of performance by faculty, fellows and residents.

**Distribution of Student's Time:**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>30%</td>
<td>Outpatient Clinical Care</td>
</tr>
<tr>
<td>20%</td>
<td>Emergency Department Clinical Care</td>
</tr>
<tr>
<td>20%</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>
</tr>
<tr>
<td>5%</td>
<td>Clinical Research</td>
</tr>
<tr>
<td>5%</td>
<td>Service Learning</td>
</tr>
</tbody>
</table>

**Course Description:**
Observation of the daily activities in the Division of Neuroradiology, including CT and MR interpretation, cerebral angiography, myelography, biopsy and drainage procedures. An oral presentation is required at the end of the rotation. 7:30am lecture sessions may be scheduled and required.
E:Medicine, Nuclear Medicine, UMH

COURSE ID: 031613  SUBJECT: RADIOL  CATALOG NUMBER: 001NUCP.U

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.

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.

Objectives:
To Enhance Knowledge And Skills Pertaining To
Interpretation of nuclear medicine scans.
Ability to formulate a differential diagnosis based on scan appearance.
Basic knowledge of nuclear medicine 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.

Assessments:
How Students Will Be Evaluated
Quality of care given (including clinical judgment).
Participation and performance in conferences.
Level of knowledge (including new knowledge).

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty.
Observation of performance by house officers.
Students will prepare a handout and review of the literature for a conference.

Distribution of Student's Time:

50 %  Outpatient Clinical Care
20 %  Inpatient Clinical Care
10 %  Conferences/Lectures/Seminars
10 %  Emergency Department Clinical Care
10 %  Service Learning
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.

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.

Assessments:

How Students Will Be Evaluated
Participation and performance in conferences and readout session.
Level of knowledge (including new knowledge).
Level of interpretive skills.

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty.
Observation of performance by house officers.
Logbook entries of observed fluoroscopy and procedures.
Assessment of PowerPoint presentations.

Distribution of Student’s Time:  
40 % Outpatient Clinical Care  
35 % Inpatient Clinical Care  
10 % Conferences/Lectures/Seminars  
10 % Emergency Department Clinical Care  
5 % Independent Study
Radiology - UMH

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.

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 interdisciplinary conferences. Appropriate sequencing of examinations will be stressed. At the end of your rotation you can choose to do one of the following:
1. Four cases in a PowerPoint format that will be presented and a copy also submitted to Amy for filing.
2. One case submitted to Society of Thoracic Radiology (thoracicrad.org) as case of the month by the end of rotation. This can be a thoracic or a cardiac case. Such cases when accepted qualify as a peer-reviewed publication in web format. If interested in this option, please contact Dr Agarwal or Dr Quint in the first week of posting. You will also be required to present it at the end of the rotation. Here is a link for such examples.
http://thoracicrad.org/?portfolio=case-of-the-month

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.

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.

Assessments:
How Students Will Be Evaluated
- Level of knowledge (including new knowledge).

Methods To Be Used In Student Evaluation Include
- Observation of performance by faculty.
- Observation of performance by house officers.
- Assessment of write-ups/reports.

Distribution of Student's Time:

- 35 % Outpatient Clinical Care
- 30 % Inpatient Clinical Care
- 10 % Conferences/Lectures/Seminars
- 10 % Preparing Case Presentation
- 5 % Emergency Department Clinical Care
- 5 % Independent Study
- 5 % Clinical Research
Instructors: Michelle Kim, MD
Course Contact: Michaela Saputo, 734 647-4754
Site Coordinator: Michaela Saputo
Duration: One or two months
Grading Basis: Graded (H, HP, P, F)
Avg # of Patients Seen Each Week: 150
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.

Assessments:
- Student Assessment
  - Contact Faculty Preceptor

Distribution of Student's Time:
- 60% Outpatient Clinical Care
- 15% Independent Study
- 10% Conferences/Lectures/Seminars
- 10% Inpatient Clinical Care
- 5% Simulation

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

Instructors: Drs. Bove, Ohye, Hirsch-Romano, and Si
Course Contact: Dr. Jennifer Hirsch-Romano; MD. Mott Children's Hospital 11-733; jhirsch@med.umich.edu; 936.4978
Site Coordinator: Dr. Jennifer Hirsch-Romano; MD. Mott Children's Hospital 11-733; jhirsch@med.umich.edu; 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

Assessments:

How Students Will Be Evaluated
  Quality of care given.
  Level of knowledge (including new knowledge).

Methods To Be Used In Student Evaluation Include
  Observation of performance by faculty.
  Observation of performance by house officers.

Distribution of Student's Time:

<table>
<thead>
<tr>
<th>%</th>
<th>Inpatient Clinical Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>95</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

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 student's interests.
Adult Cardiac Surg, UMH

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

Instructors: Drs. Francis Pagani; Rishindra Reddy; Richard Prager and other faculty
Course Contact: Dr. Francis Pagani; 5161 CVC; fpagani@med.umich.edu; 734-647-2894
Site Coordinator: Dawn Shufflin; Administrative Assistant; dshuffli@med.umich.edu; 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

Assessments:

Students Will Be Evaluated On Each Of The Following
Quality of care given (including clinical judgment)
Participation and performance in conferences
Level of knowledge (including new knowledge)
Level of skills

Student Assessment
Students will be assessed on their patient and medical knowledge in the context of patient care, operative cases, and teaching conference participation.

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty
Observation of performance by house officers
Other structured skills testing

Course Description:

Explore the gamut of Adult Cardiac and Adult Thoracic Surgery and expand understanding of patient selection, operative procedures and care and long-term 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.

Distribution of Student's Time:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td>Inpatient Clinical Care</td>
</tr>
<tr>
<td>15%</td>
<td>Outpatient Clinical Care</td>
</tr>
<tr>
<td>10%</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
<tr>
<td>10%</td>
<td>Emergency Department Clinical Care</td>
</tr>
<tr>
<td>10%</td>
<td>Independent Study</td>
</tr>
<tr>
<td>5%</td>
<td>Simulation</td>
</tr>
</tbody>
</table>
GI Surgery, UMH

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

Instructors: Drs. Knol, Mulholland, Simeone, Cho, Nathan
Course Contact: Dr. James Knol; 2210N TC; jknol@med.umich.edu; 734-936-7607
Site Coordinator: Kimberly Bologna; 2110 TC; kabolog@med.umich.edu; 734-232-9463
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 SubI objectives in the Sub-internship section of the M4 Handbook.

Assessments:

How Students Will Be Evaluated
Quality of care given (including clinical judgment).
Participation and performance in conferences.
Level of knowledge (including new knowledge).
Level of technical skills.

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty.
Observation of performance by house officers.
Assessment of write-ups/reports and patient presentations.

Distribution of Student's Time:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>70 %</td>
<td>Inpatient Clinical Care</td>
</tr>
<tr>
<td>15 %</td>
<td>Outpatient Clinical Care</td>
</tr>
<tr>
<td>10 %</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
<tr>
<td>5 %</td>
<td>Emergency Department Clinical Care</td>
</tr>
</tbody>
</table>

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: 701GSEI.U

Instructors: Drs. Gauger, Miller, Cohen, Hughes, Burney, Finks, Varban, Dimick, Telem, Endocrine Surgery Fellow

Course Contact: Dr. David Hughes; davhughe@umich.edu; 2920 TC; 734-936-0231

Site Coordinator: Kimberly Bologna; 2110 TC; kabolog@med.umich.edu; 734-232-9463

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 Sub-internship section of the M4 Handbook.

Assessments:

How Students Will Be Evaluated

Quality of clinical evaluation and planning in outpatient setting.

Quality of pre- and post-operative care of the surgical patient.

Participation and performance in conferences.

Level of knowledge including acquisition of new knowledge.

Level of technical skills (knot-tying, suturing, etc.).

Ability to participate in patient care as a member of a team.

Methods To Be Used In Student Evaluation Include

Observation of performance by faculty.

Observation of performance by house officers, physician extenders, and nursing staff.

Assessment of written H&P/notes.

Student involvement in conferences.

Observing a student present patients and/or patient data.

Participate as a member of the clinical team.

Present a topic to the weekly conference during the rotation.

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.

Distribution of Student's Time:

75 % Inpatient Clinical Care

25 % Outpatient Clinical Care
Instructors: Drs. Burns, Byrn, Chang, Dossett, Hardiman, Hendren, Jeruss, Regenbogen, Sabel
Course Contact: Dr. Scott Regenbogen; 2124 TC; sregenbo@med.umich.edu; 734-647-9710
Site Coordinator: Kimberly Bologna; 2110 TC; kabolog@med.umich.edu; 734-232-9463
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 Sub-internship section of the M4 Handbook.

Assessments:
How Students Will Be Evaluated
- Quality of care given.
- Participation and performance in conferences.
- Level of knowledge (including new knowledge).

Methods To Be Used In Student Evaluation Include
- Observation of performance by faculty.
- Observation of performance by house officers.
- Assessment of write-ups, reports, and presentations.

Distribution of Student's Time:
- 50% Inpatient Clinical Care
- 20% Outpatient Clinical Care
- 10% Conferences/Lectures/Seminars
- 10% Independent Study
- 5% Emergency Department Clinical Care
- 5% Service Learning

Course Description:
This clerkship is designed to provide sub-internship 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

**Instructors:** Drs. Ehrlich, Kunisaki, Arnold, Coran, Polley, Hirschel, Teitelbaum, Geiger, Bruch, Jarboe, Arnold, and Mychaliska

**Course Contact:** Dr. Theodore Polley; 4-972 Mott; tpolley@med.umich.edu; 734-764-6482

**Site Coordinator:** Cheryl Peterson, 4-972 Mott; chrissp@med.umich.edu; 734-764-6482

**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 Sub-internship section of the M4 Handbook.

**Assessments:**

- **How Students Will Be Evaluated**
  
  - Quality of care given.
  - Participation and performance in conferences.
  - Level of knowledge (including new knowledge).
  - Enthusiasm, willingness, ability to function as part of resident team.

- **Methods To Be Used In Student Evaluation Include**
  
  - Observation of performance by faculty.
  - Observation of performance by house officers.

**Distribution of Student's Time:**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td>Inpatient Clinical Care</td>
</tr>
<tr>
<td>25%</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
<tr>
<td>25%</td>
<td>Outpatient Clinical Care</td>
</tr>
</tbody>
</table>

**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  SUBJECT: SURGERY  CATALOG NUMBER: 701PLSI.U

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 Sub-internship section of the M4 Handbook.

Assessments:

How Students Will Be Evaluated
Quality of care given.
Level of knowledge (including new knowledge).
Level of skills.

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty.
Observation of performance by house officers.
Performance on take-home written exam.

Distribution of Student's Time:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>60%</td>
<td>Inpatient Clinical Care</td>
</tr>
<tr>
<td>25%</td>
<td>Outpatient Clinical Care</td>
</tr>
<tr>
<td>5%</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
<tr>
<td>5%</td>
<td>Emergency Department Clinical Care</td>
</tr>
<tr>
<td>5%</td>
<td>Service Learning</td>
</tr>
</tbody>
</table>

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, Adult SILVER, 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.
Surgery - UMH

Thoracic Sub I, UMH

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

Instructors: Andrew Chang, Jules Lin, Mark Orringer, Rishi Reddy, Bill Lynch, Phil Carrott, Kiran Lagisetty

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 Sub-internship section of the M4 Handbook.

Assessments:

How Students Will Be Evaluated
Quality of care given (including clinical judgment)
Participation and performance in conferences
Level of knowledge (including new knowledge)
Level of skills

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty
Observation of performance by house officers
Assessment of write-ups/reports

Distribution of Student's Time:

<table>
<thead>
<tr>
<th>%</th>
<th>Inpatient Clinical Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>70</td>
<td>25</td>
</tr>
<tr>
<td>25</td>
<td>5</td>
</tr>
</tbody>
</table>

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 sub-interns, 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

Instructors: Drs. Woodside, Punch, Magee, Sung, Welling, Sonnenday, Englesbe
Course Contact: Dr. Christopher Sonnenday; 2926 TC; csonnen@med.umich.edu; 734-936-5816
Site Coordinator: Crystal Kirklin, administrative assistant; 2926 TC; cberj@med.umich.edu; 734-936-5816

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 Sub-internship section of the M4 Handbook.

Assessments:

How Students Will Be Evaluated
Quality of care given (including clinical judgment)
Participation and performance in conferences.
Level of knowledge (including new knowledge).
Level of skills.

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty.
Observation of performance by house officers.

Distribution of Student’s Time:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Clinical Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>70 %</td>
<td>Inpatient Clinical Care</td>
</tr>
<tr>
<td>15 %</td>
<td>Outpatient Clinical Care</td>
</tr>
<tr>
<td>5 %</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
<tr>
<td>5 %</td>
<td>Emergency Department Clinical Care</td>
</tr>
<tr>
<td>5 %</td>
<td>Service Learning</td>
</tr>
</tbody>
</table>

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.
Surgery - UMH

Vascular Surgery, UMH

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

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

Course Contact:  Contact Dr. Coleman if you're 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 Duwana Villemure for additional information of the rotation.

Objectives:

Additional Objectives
Please refer to SubI objectives in the Sub-internship section of the M4 Handbook.

Assessments:

How Students Will Be Evaluated
Quality of care given (including clinical judgment)
Participation and performance in conferences.
Level of knowledge (including new knowledge).
Level of skills.

Methods To Be Used In Student Evaluation Include
Observation of performance by faculty.
Observation of performance by house officers.

Distribution of Student's Time:

<table>
<thead>
<tr>
<th>Distribution of Student's Time</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient Clinical Care</td>
<td>65 %</td>
</tr>
<tr>
<td>Outpatient Clinical Care</td>
<td>20 %</td>
</tr>
<tr>
<td>Emergency Department Clinical Care</td>
<td>10 %</td>
</tr>
<tr>
<td>Conferences/Lectures/Seminars</td>
<td>5 %</td>
</tr>
</tbody>
</table>

Course Description:

This clerkship is designed to provide sub-internship 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

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

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

Course Contact: Dr. David Machado-Aranda; IC421 UH; dmachad@med.umich.edu; 734-936-9690

Site Coordinator: Kimberly Bologna; 2110 TC; kabolog@med.umich.edu; 734-232-9463

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.

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 Sub-internship section of the M4 Handbook.

Assessments:

Student Assessment
Contact Faculty Preceptor

Distribution of Student's Time:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 %</td>
<td>Inpatient Clinical Care</td>
</tr>
<tr>
<td>20 %</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
<tr>
<td>20 %</td>
<td>Independent Study</td>
</tr>
</tbody>
</table>

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

Instructors: Urology Faculty
Course Contact: Dr. Anne Pelletier-Cameron, 3875 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 Sub-internship section of the M4 Handbook.

Assessments:

How Students Will Be Evaluated
Quality of care given (including clinical judgment).
Participation and performance in conferences.
Level of knowledge (including new knowledge).

Methods To Be Used In Student Evaluation Include

Observation of performance by faculty.
Observation of performance by house officers.
Logbook entries.
Assessment of write-ups/reports.

Distribution of Student's Time:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Type of Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>70%</td>
<td>Inpatient Clinical Care</td>
</tr>
<tr>
<td>20%</td>
<td>Outpatient Clinical Care</td>
</tr>
<tr>
<td>10%</td>
<td>Conferences/Lectures/Seminars</td>
</tr>
</tbody>
</table>

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.