WILLIAM CAREY UNIVERSITY
College of Osteopathic Medicine

Clinical Science
Manual
2014-2015

Office of the Associate Dean of Clinical Science
Information contained herein shall not constitute a legally binding contract upon William Carey University College of Osteopathic Medicine (WCUCOM). The WCUCOM Catalog and Student Handbook and WCU Student Handbook supersede this document. Policies, requirements, and information in this handbook may be updated from time to time by WCUCOM at its sole discretion. Changes will be distributed to students and become effective immediately unless otherwise specified. Changes occurring in the Clinical Science Manual will be posted online quarterly as addendums on SaderNet. Notifications to the respective stakeholders will be made via email. At the end of each academic year, all changes cited as addendums throughout a given academic year is/are incorporated into the parent document for the academic year that follows and the cycle is repeated. This policy addresses the need for transparency. All inquiries regarding the WCUCOM Clinical Science Manual should be directed to the WCUCOM Associate Dean, Clinical Science, at 601-318-6090. Any recommendations for additions, deletions, or changes must be submitted in writing to the Associate Dean, Clinical Science of WCUCOM. Final approval is by the Board of Trustees based upon recommendations from the President of WCU.

An electronic copy of this publication is available on D2L.
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Section I

The Four Principles of Osteopathic Medicine

The WCUCOM’S curriculum places heavy emphasis on A.T. Still’s Four Principles of Osteopathic Medicine. They are:

1. The body is a unit; the person is a unit of mind, body, and spirit.
2. The body is capable of self-regulation, self-healing, and health maintenance.
3. Structure and function are reciprocally interrelated.
4. Rational treatment is based on the above three.

Code of Ethics of the American Osteopathic Association

The American Osteopathic Association has formulated this Code to guide its member physicians in their professional lives. The standards presented are designed to address the osteopathic physician's ethical and professional responsibilities to patients, to society, to the AOA, to others involved in healthcare and to self. Further, the American Osteopathic Association has adopted the position that physicians should play a major role in the development and instruction of medical ethics.

Section 1

The physician shall keep in confidence whatever she/he may learn about a patient in the discharge of professional duties. The physician shall divulge information only when required by law or when authorized by the patient.

Section 2

The physician shall give a candid account of the patient's condition to the patient or to those responsible for the patient's care.

Section 3

A physician-patient relationship must be founded on mutual trust, cooperation, and respect. The patient, therefore, must have complete freedom to choose her/his physician. The physician must have complete freedom to choose patients whom she/he will serve. However, the physician should not refuse to accept patients because of the patient's race, creed, color, sex, national origin, or handicap. In emergencies, a physician should make her/his services available.

Section 4

A physician is never justified in abandoning a patient. The physician shall give due notice to a patient or to those responsible for the patient's care when she/he withdraws from the case so that another physician may be engaged.

Section 5

A physician shall practice in accordance with the body of systematized and scientific knowledge related to the healing arts. A physician shall maintain competence in such systematized and scientific knowledge through study and clinical applications.
Section 6
The osteopathic medical profession has an obligation to society to maintain its high standards and, therefore, to continuously regulate itself. A substantial part of such regulation is due to the efforts and influence of the recognized local, state, and national associations representing the osteopathic medical profession. A physician should maintain membership in and actively support such associations and abide by their rules and regulations.

Section 7
Under the law a physician may advertise, but no physician shall advertise or solicit patients directly or indirectly through the use of matters or activities that are false or misleading.

Section 8
A physician shall not hold forth or indicate possession of any degree recognized as the basis for licensure to practice the healing arts unless he is actually licensed on the basis of that degree in the state in which she/he practices. A physician shall designate her/his osteopathic school of practice in all professional uses of her/his name. Indications of specialty practice, membership in professional societies, and related matters shall be governed by rules promulgated by the American Osteopathic Association.

Section 9
A physician should not hesitate to seek consultation whenever she/he believes it advisable for the care of the patient.

Section 10
In any dispute between or among physicians involving ethical or organizational matters, the matter in controversy should first be referred to the appropriate arbitrating bodies of the profession.

Section 11
In any dispute between or among physicians regarding the diagnosis and treatment of a patient, the attending physician has the responsibility for final decisions, consistent with any applicable osteopathic hospital rules or regulations.

Section 12
Any fee charged by a physician shall compensate the physician for services actually rendered. There shall be no division of professional fees for referrals of patients.

Section 13
A physician shall respect the law. When necessary a physician shall attempt to help to formulate the law by all proper means in order to improve patient care and public health.

Section 14
In addition to adhering to the foregoing ethical standards, a physician shall recognize a responsibility to participate in community activities and services.
Section 15

It is considered sexual misconduct for a physician to have sexual contact with any current patient whom the physician has interviewed and/or upon whom a medical or surgical procedure has been performed.

Section 16

Sexual harassment by a physician is considered unethical. Sexual harassment is defined as physical or verbal intimation of a sexual nature involving a colleague or subordinate in the workplace or academic setting, when such conduct creates an unreasonable, intimidating, hostile, or offensive workplace or academic setting.

Section 17

From time to time, industry may provide some AOA members with gifts as an inducement to use their products or services. Members who use these products and services as a result of these gifts, rather than simply for the betterment of their patients and the improvement of the care rendered in their practices, shall be considered to have acted in an unethical manner.

Section 18

A physician shall not intentionally misrepresent himself/herself or his/her research work in any way.

Section 19

When participating in research, a physician shall follow the current laws, regulations, and standards of the United States or, if the research is conducted outside the United States, the laws, regulations, and standards applicable to research in the nation where the research is conducted. This standard shall apply for physician involvement in research at any level and degree of responsibility, including, but not limited to, research, design, funding, participation either as examining and/or treating provider, supervision of other staff in their research, analysis of data, and publication of results in any form for any purpose.

(Reprinted from the AOA website 6/20/13)

The Osteopathic Oath

I do hereby affirm my loyalty to the profession I am about to enter. I will be mindful always of my great responsibility to preserve the health and life of my patients, to retain their confidence and respect both as a physician and a friend who will guard their secrets with scrupulous honor and fidelity, to perform faithfully my professional duties, to employ only those recognized methods of treatment consistent with good judgment and with my skill and ability, keeping in mind always nature’s laws and the body’s inherent capacity for recovery. I will be ever vigilant in aiding in the general welfare of the community, sustaining its laws and institutions, not engaging in those practices which in any way bring shame or discredit upon myself or my profession. I will give no drugs for deadly purposes to any person, though it may be asked of me. I will endeavor to work in accord with my colleagues in a spirit of progressive cooperation, and never by word or by act cast imputation upon them or their rightful practices. I will look with respect and esteem upon all those who have taught me my art. To my college I will be loyal and strive always for its best interests and for the interests of the students who will come after me. I will be ever alert to further the application of basic biologic truths to the healing arts and to develop the principles of osteopathy which were first enunciated by Andrew Taylor Still.
Core Competencies

Precedence exists for framing a medical student curriculum in the context of the General Competencies, namely the Family Medicine Curriculum Resource (FMCR) released by the Society of Teachers of Family Medicine in 2004 and funded by the Health Resources and Services Administration. Competency based education has continued to evolve and in August, 2012 the American Association of Colleges of Osteopathic Medicine (AACOM) and the American Osteopathic Association (AOA) published a document entitled “The Osteopathic Core Competencies for Medical Students”. Clinical rotations at WCUCOM are structured upon this framework and rotation goals and objectives are based upon the competencies. In addition, preceptor assessment is intended to gauge student progress toward attaining competence, as measured by meeting or exceeding benchmarks described in the preceptor evaluation of student performance. (Appendix A). Below is a brief summary of the Osteopathic Core Competencies as they apply to clinical rotations.

Medical Knowledge

Preceptors are expected to evaluate medical knowledge, understanding of disease process, and the student’s ability to apply knowledge of the basic sciences to clinical situations.

Osteopathic Philosophy and Osteopathic Manipulative Medicine

All preceptors, both allopathic and osteopathic, are expected to encourage and verify application of osteopathic principles as discussed on page 4, The Four Principles of Osteopathic Medicine. Osteopathic preceptors are expected to encourage and evaluate the student’s ability to perform and document an osteopathic structural examinations and their appropriate use of osteopathic manipulative treatment (OMT).

Patient Care

Preceptors are expected to evaluate the student’s ability to consistently demonstrate competence in patient care, including the ability to competently take a history, perform a physical examination, generate a differential diagnosis, assist with medical procedures, and provide appropriate follow-up care.

Interpersonal and Communication Skills

Preceptors are expected to evaluate the student’s ability to communicate with patients and their families in an effective manner. Written documentation should also be assessed for accuracy and completeness. In addition, the student’s ability to effectively communicate with other health care professionals and their skills in verbally presenting patient information should be assessed.

Professionalism

Preceptors are expected to evaluate professionalism, including demonstrated ethical, personal, and professional qualities deemed necessary for the continued successful study and practice of Osteopathic Medicine. These qualities include the ability to maintain professional relationships with patients and staff, responsibility, dependability, and reliability. Dress and general hygiene, promptness incompletion of assignments, punctuality and reliability are to be considered within this competency.
Practice Based Learning & Improvement

Preceptors are expected to evaluate the student’s ability to integrate evidence based medicine into patient care, as well as the extent to which the student shows an understanding of research methods and an ability to interpret the medical literature.

System Based Practice

Preceptors are expected to evaluate the student’s ability to understand his/her role as a member of the health care team and the student’s understanding of local community medical resources.

Section II

OMS 3 rotations begin August 1, 2014 and are scheduled to be completed by July 31, 2015. OMS 4 rotations begin August 1, 2014 and end April 15, 2015.

Student Involvement on Clinical Rotations

- A student of the William Carey University College of Osteopathic Medicine is not a licensed physician. Therefore, he/she is not legally or ethically permitted to practice medicine. A student may assist in the care of a patient, but only under the direction and supervision of a licensed physician. The physician is responsible for medical care of the patient and for approving and countersigning all orders, progress notes, etc., written by the student.
- A student will not administer therapy or medication until a licensed physician has seen the patient and has confirmed the diagnosis. Before treatment is administered, the student’s orders must be countersigned.
- Supervision of the student in the clinical setting is the direct responsibility of their preceptor. Any educational activity involving patients can only be done when the supervising physician is immediately available on the premises to assist and direct the student’s activities. Any violation of this policy must be immediately reported by the student to the Office of the Associate Dean, Clinical Sciences at William Carey University College of Osteopathic Medicine.
- A student faced with a life-threatening emergency in the absence of their supervising physician should use her/his best judgment in rendering care until a licensed physician or other qualified health care professional arrives.
- With the exception of a life-threatening emergency, if a supervising physician or other authorized physician is not available, the student shall cease patient care activities. If this is a recurrent situation during a rotation, the student must notify the Office of the Associate Dean, Clinical Sciences at William Carey University College of Osteopathic Medicine.
- If a student finds themselves in a situation where they feel uncomfortable or are concerned for patient safety, they should immediately contact the Office of the Associate Dean, Clinical Sciences at William Carey University College of Osteopathic Medicine.

A WCUCOM representative is available at any time by calling 601-318-6094.
Formal Case Presentations

In addition to presenting patients to their preceptors on a daily basis, students may be requested to present a patient in a more formal setting, such as morning report or a clinical case conference. The following may be helpful when preparing for this type of activity:

- Present the case in an organized fashion: Chief complaint, including sex and age of patient, HPI, pertinent ROS, Physical examination, differential diagnosis and plan for further evaluation and management.
- Determine the reason that you are presenting the case in order to tailor your further discussion:
  - Are you presenting a case that is unusual and will be discussing the disease process or treatment? Is this a morbidity/mortality conference where the emphasis is on potential physician or system error?
- Arrange in advance for any audiovisual equipment or materials you may need: PowerPoint, handouts, overheads/Elmo flipchart and markers, radiographs/Other Images pathology slides.

Hours of Duty

Daily student working hours are to parallel the hours of the preceptor. Deviation from these hours is at the discretion of the supervising physician or his/her designee. A student should not be routinely required to work more than twelve (12) consecutive hours, unless night duty or “call” is assigned. The maximum continuous duration of hours that a student may be considered to be “on duty” is 24 hours and must be followed by a minimum of 12 hours off duty. Assignment of night and/or weekend duty must adhere to the following guidelines:

- A minimum number of hours per week has not been defined but in typical circumstances, patient care duty hours should be between 40 and 60 hours per week. Usual and customary practice will prevail. The student and supervising physician shall exercise reason in this matter.
- A work or duty week should be limited to a maximum of seventy-two (72) hours. Additional hours should be on a voluntary basis and reported on the student’s daily log.
- The student may be given two (2) weekends off per month of rotation.
- A weekend off should be forty-eight (48) consecutive hours, occurring on either Saturday and Sunday or Friday and Saturday. The supervising physician or on-site Director of Medical Education will make this decision, and these guidelines may not apply on certain rotations. These periods must be free of any assigned duties.
- The maximum duration of any work or duty period will be twenty-four (24) hour and must be followed by a minimum of twelve (12) hours off duty.
- A standard formula for hours worked per month is as follows = 8 hours per day x 5 days per week x 4 weeks per month = 160 hours per rotation – each student should complete a minimum of 160 duty hours per rotation.

Location

In the OMS 3 year, your rotation calendar will be distributed to you in July. This document includes the rotation specialty, name of the hospital/clinic where your rotation will be based and the name of your assigned preceptor. 1 (one) week before the rotation begins, please contact your clinical rotations counselor. They will provide you with contact information for you preceptor so that you may contact the preceptor directly to determine the time and place that you are to meet on the first day of the rotation.

In the OMS 4 year you will be establishing your own schedule for your elective rotations. It is recommended that you touch base with your preceptor or other designated contact one week prior to beginning a rotation to determine the time and place that you are to meet on the first day of the rotation.
Dress

At all times, WCUCOM students shall consider themselves to be a representative of the school, and the osteopathic profession. They will be attentive to personal hygiene and cleanliness. Clothing should be clean, professionally styled and in good repair. Women should wear skirts of medium length or tailored slacks. Men should wear tailored slacks and a dress shirt. Shoes must be comfortable, clean, and in good repair. Shoes should be worn with socks or hose. Shoes should have closed toes. Fingernails should be clean, and of short to medium length. Muted tones of nail polish are appropriate for women. Artificial nails are not permitted in clinical areas. Keep jewelry to a minimum to limit the potential for cross-infection of patients. The following are permitted: a watch, up to four rings, small earrings, academic pins, badges, or insignias, modest bracelets and necklace chains. An appropriate holiday pin during the specific holiday is suitable.

Short white lab coats with WCUCOM identification are to be worn unless specifically instructed not to do so by the hospital or preceptor. Scrub suits are to be worn in specific patient care areas only, i.e., ED, OR, ICU’s, or as required by the hospital or preceptor. If they are property of the hospital they are not to be defaced, altered, or removed from the hospital premises. If a scrub suit must be worn outside of clinical areas, it must be clean, and then covered with a clean, white lab coat. Shoe covers, masks, and hair covers must be removed before leaving the clinical area. Stained or soiled scrub suits must be changed as soon as possible.

At all times, the student must be clearly identified as a WCUCOM student. Appropriate means of identification include a lab coat with your name and the name of the college on it, a clearly visible name tag with the above information, or a hospital assigned identification badge with your name, proper training status, and college affiliation. All identification must be clearly visible and worn above the waist. Failure to display proper identification may result in termination of the clinical rotation.

While in lectures or other activities that do not involve patient care, students should wear neat, clean, and professional attire as described above. Avoid dress or attire that could be potentially offensive to the public, your peers, patients, faculty, and co-workers. ID badges must be worn at all times while on assignment. Denim jeans, flip-flops, or shorts are not appropriate attire.

Proper personal hygiene is to be maintained at all times. This includes regular bathing, use of deodorants/antiperspirants, and regular dental hygiene. Avoid perfumes or colognes as they may precipitate allergies or sensitivities.

Hair should be neat, clean, and of a natural human color. Hair should be styled off the face and out of the eyes. Shoulder length hair must be secured to avoid interference with patients and work. Avoid scarves or ribbons (unless culturally appropriate).

**THESE ITEMS ARE SPECIFICALLY PROHIBITED** in any hospital or clinical facility/location):

- Blue jeans (regardless of color), or pants of a blue jean style.
- Shorts.
- Open-toed, high-heeled, or canvas shoes, or flip-flops. Midriff tops, tee shirts, halters, translucent or transparent tops, shirts or tops with plunging necklines, tank tops, or sweatshirts.
- Buttons or large pins that could interfere with work function, transmit disease, or be grabbed by a patient.
- Visible body tattoos or body piercing other than small earrings, unless exemptions are given for religious reason.
It is WCUCOM policy that the preceptor, clinical faculty, program director, or hospital administration may at any time prohibit a student from participating at any location based on inappropriate and unprofessional dress. Such instances must be reported to the office of the Associate Dean of Clinical Affairs by the student at once. Students may be required to remediate time missed.

**Lectures and Meetings**

It is the responsibility of the student to be familiar with the hospital’s didactic lecture schedule and to document attendance within the student log. Didactic programs include, but are not limited to: Morning Report, Journal Club, Morbidity/Mortality Conference, Tumor Conference, Grand Rounds and Noon Conference. Please document lecture in your logs.

**Logs**

**Reading Assignment Logs**

Each rotation has an assigned reading log that includes reading and exercises meant to enhance the student’s medical knowledge and to prepare them for their end of rotation examination or COMAT. Within the log, there is also a reference for OMT reading when applicable.

The reading assignment log for each month’s rotation contains 20 days of assigned reading activity. This is in keeping with our overall philosophy that the person is a unit of mind, body, and spirit. Using the 20-day model, students should have 2 days per week for personal activity and rest, and 2 to 3 days per month to prepare for the end of rotation exam, which will comprise 20% of the grade for that rotation. It is also expected that each preceptor may assign additional reading. In addition, you should read about interesting cases seen throughout the rotation and it is usual for students to pre-read on surgeries and procedures in which they are assigned to participate. A word of caution: Do not fall into the trap of procrastination and attempting to “catch up” at week’s end.

**Patient and Procedure Logs**

Logs that record the patient being evaluated, primary diagnoses and procedures performed on each patient are required. Such logs enable the student to keep track of the variety of patient encounters and procedures that he/she has performed. It also provides a record to WCUCOM administration which allows for comparison of rotations and rotation sites as to the scope and variety of patients that are being encountered. All logs are to be completed using the E-value system. Many students have found it helpful to request a printout of the office’s daily appointment schedule to assist them with their record keeping.

When completing patient logs, it is essential that students record their use of osteopathic examination techniques (structural exams, etc.) as well as documenting any manipulation performed. These logs are used to calculate the OMT portion of your final rotation grade, as described below under student assessment.

**Logs must be turned in to the clinical rotations office within 7 calendar days of the end of every rotation.**
Medical History and Physical Examination (H&P) Policy

We believe in the importance of an educationally sound, realistic policy pertaining to medical students performing histories and physicals in affiliated hospitals. The complete H&P is a vital part of patient evaluation as is the development of a differential diagnosis. Osteopathic Principles and Procedures (OPP) must be documented in each H&P. Osteopathic Manipulative Treatment (OMT) should be performed when appropriate.

Whenever possible, students should complete an average of twelve (12) H&Ps per week (2 per day). These should be performed within the student’s assigned service and should be critiqued by the student’s preceptor. Student workload should be such that there is time and opportunity for the student to follow the course of their patient. The student should consult with their attending as to whether or not their written or EMR version of the H&P should be placed in the patient’s hospital chart as this may vary between site and among preceptors.

In clinic and office based rotations, the number of patients seen will be dependent upon patient volume; however, the workflow should allow time for the following on the part of the student:

- Performance of diagnostic and therapeutic procedures that are supervised by the preceptor with feedback provided to the student
- Opportunity for patient follow-up.
- Opportunity for independent study.

End-of-Rotation Examinations and COMAT

At the end of each OMS 3 rotation, students will be expected to complete a written examination. This will consist of an 80 question test that will be distributed via D2L or a COMAT examination. COMAT is a specialty specific examination that is written by the NBOME and is delivered via computer in a proctored environment. End of rotation examinations are released at 4pm on the final weekday of a rotation. COMAT examinations will be administered during the final 5 days of a rotation. Students will be reminded of the date and time for these examinations by email on or about the 15th of the month. Details as to testing can be found in the syllabus for each specific rotation. Failure of an end of rotation examination or of a COMAT will require the student to remediate in order to obtain a passing grade on their rotation. (See remediation section below).

Student Evaluation (Grading) for OMS 3 Rotations

A significant component of the rotation grade is the WCUCOM preceptor evaluation of student performance which is completed by the supervising physician. It is recommended that a preceptor use this form as a guide to provide feedback to the student midway through his rotation. The form should be discussed with the student again prior to submission at the end of the rotation.

The preceptor is required to verify logs submitted by the student. Upon receipt and review of all assignments, logs and evaluations, a grade will be computed using the following guidelines:

55% WCUCOM Preceptor Evaluation of Student Performance - This must be received before a student can be assigned a final grade for the rotation. In cases where a student is scheduled in a similar specialty for two consecutive months (IM1 followed by IM2, for example) an evaluation must be completed at the end of each month. This evaluation is available online for student review as soon as it is completed by the preceptor. If the student disagrees with an evaluation they may mark it as such and the Associate Dean, Clinical Sciences will assess the grade and discuss with the preceptor as appropriate.
**20% End of rotation examination or COMAT** - All exams will be conducted through online testing and must be completed during the prescribed time period during the final week of each rotation. This component may be remediated in order to achieve a passing grade for the course (See section on remediation, below)

**15% Completion of OMT Curriculum:** In order to gain the full 15% allotted to this portion of the grade a student must:
- Read and answer questions about an assigned journal article on osteopathic principles and practices. The article and quiz are posted on D2L under the appropriate rotation. In order to successfully complete this component a student must achieve 70% on the quiz component. The student has 2 attempts to achieve this score.
- Perform osteopathic structural examinations and OMT when indicated. These procedures must be logged and a minimum of 10 (ten) procedures documented in order to obtain full credit. All logs must be submitted within 7 calendar days of completion of the rotation in order to be considered complete. If a preceptor does not allow students to perform OMT, the preceptor must indicate this on the student log form and this must be submitted to the clinical rotations office.
- On rotations where a preceptor does not permit OMT or when a student did not encounter 10 patients in which OMT was appropriate, they may achieve full credit by reading and answering questions about a second OMT article. This article and quiz is also posted on D2L under the appropriate rotation.

**5% Completion of EBM Curriculum**

In order to successfully complete this component, the student will read and analyze two journal articles related to the rotation. These articles are posted on-line and should be critically appraised by using the “quiz” accompanying each article. Upon submission of this analysis students will be able to see their correct and incorrect answers. They may re-submit the analysis one time after reviewing their answers. Students must achieve a minimum of 70% correct on each article analysis in order to successfully complete this component.

**5% Completion of clinical patient logs and procedure logs and evaluation forms:** - All logs are due at the end of each rotation. Logs must be submitted electronically through E*Value and a hard copy submitted to your Regional Rotations Counselor. All evaluations of preceptor/rotation will be released by E*Value on the final day of the rotation and should be completed online. All logs and evaluations must be submitted within 7 calendar days of completion of the rotation. Failure to comply with this deadline will result in a reduction of 1 point (20%) of this grade for each week of delay. (ie: submitted > 7 days and < 14 days after completion will receive a maximum of 4 points, 14 days but < 21 days, 3 points etc.) Should all paperwork not be received within 5 weeks (35 days) after completion of the rotation the student will receive a zero for this component and will fail the rotation.

The overall grade for each 1-month rotation will be calculated as follows:

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<tr>
<th>WCUCOM Preceptor Evaluation of Student Performance X 55</th>
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<tbody>
<tr>
<td>+ % Completion of logs and evaluations X 5</td>
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<tr>
<td>+ % Completion of EBM component X 5</td>
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<tr>
<td>+ % Completion of OMT requirement X 15</td>
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<tr>
<td>+ % Grade on end of rotation examination X 20</td>
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<td>= 100 maximum points</td>
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Grade assignment:

Grades cannot be computed until all 5 of the grade components have been submitted to the WCUCOM Clinical Rotations Office. Student grades will not be posted until the Student Evaluation of the Preceptor has been received for that rotation.

Fail: The student has an overall score of less than 70% OR:
- Scores below 70% on the WCUCOM Preceptor Evaluation of Student Performance
- Scores below 70% on the end of rotation examination/COMAT
- Fails to complete a minimum of 1 component of the OMT curriculum
- Fails to complete the EBM curriculum
- Fails to submit appropriate logs and evaluations within 35 days of completion of the rotation will also result in a failing grade for the rotation.

Pass: The student has an overall score of 70-79% AND:
- Scores at least 70% on the WCUCOM Preceptor Evaluation of Student Performance
- Scores at least a 70% on the end of rotation examination/COMAT
- A minimum of one component of the OMT curriculum has been successfully completed
- The EBM curriculum has been successfully completed
- Logs and evaluations have been received before the 35 day deadline.

High pass: The student has an overall score of 85% AND:
- Scores at least 80% on the WCUCOM Preceptor Evaluation of Student Performance
- Scores at least 80% on the end of rotation examination/COMAT
- Has successfully completed both components of the OMT curriculum
- The EBM curriculum has been successfully completed
- Logs and evaluations have been received before the 35 day deadline.

Pass with honors: The student has an overall score of 95% AND:
- Scores at least 90% on the WCUCOM Preceptor Evaluation of Student Performance
- Scores at least 90% on the end of rotation examination/COMAT
- Has successfully completed both components of the OMT curriculum
- The EBM curriculum has been successfully completed
- Logs and evaluations have been received before the 35 day deadline.

Challenge of Grades

Any grade challenges or questions are to be directed to the Associate Dean, Clinical Sciences. The student may request a review of the challenge by the Promotions and Matriculation Committee, if the Associate Dean’s response requires clarification.

Remediation

Failure of an end of rotation examination will require that a student complete a paper that covers topics assigned by the Associate Dean, Clinical Sciences. Upon receipt of this assignment, the student will have 2 weeks to complete and submit the assignment to the Associate Dean, Clinical Sciences for review.
Failure of a COMAT examination will require that the student take a second COMAT covering the specialty. Due to the proctored nature of this examination, repeat COMATS will be given as a block. The schedule for remediation is as follows:

- Failure of a COMAT in August, September, October—Remediation COMAT December 1-5
- Failure of a COMAT in November, December, January—Remediation COMAT March 2-6
- Failure of a COAMT in February, March, April—Remediation COMAT June 1-5
- Failure of a COAT in May or June—Remediation COMAT July 20-24.
- Failure of July COMAT will result in the student being placed on directed study for the first 2 weeks of their OMS 4 year and to allow them to prepare for a remediation COMAT on 8/14/15.

Failure of a clinical rotation will result in referral to the P&M Committee. The committee will make a recommendation to the Dean based upon the overall academic performance of the individual student. P+M recommendations can range from allowing the student to remediate the individual rotation to recommending that the student be dismissed from WCUCOM.

**Patient Care and OMT Competency Course (7381)**

Beginning with the graduating class of 2005, both allopathic and osteopathic students have been required to take a practical examination that evaluates their clinical skills as part of their national board examinations. This examination is taken during the 4th year of medical school. This type of examination is often called an OSCE. The OSCE utilizes standardized patients who are lay people that receive intensive training to accurately depict specific illnesses. The student performs clinical tasks in a series of test stations while interacting with a standardized patient. The OSCE is objective because standardized checklists are used to evaluate each student physician. It is structured, or planned, so that every student physician sees the same problems and is asked to perform the same tasks. The OSCE is clinical because the tasks are representative of those faced in real clinical situations. It is an examination or evaluation of the student physician’s clinical skills. The OSCE may be used to teach patient-centered skills and/or to measure a student’s clinical performance. Some of the key areas that this examination measures include:

- Doctor-patient communication
- Medical history taking
- Physical examination skills
- Written communication skills
- Clinical problem solving
- Formulating a differential diagnosis and therapeutic plan

This course has been developed both to prepare students for this examination as well as to allow for a more standardized overview of student progress throughout their OMS 3 year. Each student will return to campus on three occasions to participate in this course. The content will include OSCEs, board review sessions aimed at assisting students to pass the COMLEX PE and an OMT review and clinical skills assessment.

Further course details are available in the course syllabus and will be posted on D2L prior to August 1, 2014.

Students are required to achieve a passing grade in this course in order to be eligible for the COMLEX PE examination as well as to be eligible to advance to OMS 4 status. Details on course remediation are available in the course syllabus.
A last word of advice on the COMLEX 2 PE— you will not be allowed to graduate or begin a residency until you have successfully completed and passed both parts of COMLEX 2. The PE examination can be difficult to schedule and, at the time of this writing; can only be taken in Conshohocken, PA. (Outside of Philadelphia). You are strongly advised to register for this exam on the earliest date possible and to take the exam at the earliest date available to you.

Section III
Student Policies and Procedures

Communication

The primary mechanism of communication between WCUCOM and students during their OMS 3 and OMS 4 rotations will be via e-mail. All email communication should use the student’s WCUCOM email address. It is imperative that you check your email to this address on a daily basis and respond to all emails in a timely fashion. Should you be having problems with your internet connection or your email account, it is your duty to report the issue to the Clinical Rotations Office. The Clinical Rotations Office can be reached at any time by calling 601-318-6094.

Equipment

Students will provide their own equipment for their rotations including (but not limited to) adult size stethoscope, otoscope/ophthalmoscope and a neurologic hammer.

Attendance

Students will report to their rotation site on time and on the first day of the calendar month, unless otherwise instructed by their preceptor. It is the responsibility of the student to contact their supervising physician 3 to 5 days in advance of a new rotation to clarify time and location to meet for the first day of duty. Students are expected to be punctual and to attend all office hours, rounds, deliveries, conferences and any other duties assigned by their preceptor throughout the duration of their rotation.

Absence of the attending physician, or the student, from the practice for a period greater than one day requires the student to notify the Clinical Rotations Office of the interruption of activity. At the discretion of the Associate Dean, Clinical Sciences, either a reading assignment or alternate duty assignment will be made.

A maximum of three (3) days for absence is permitted on any rotation. The student must notify their preceptor as well as the Clinical Rotations Office of any absences. Absence in excess of the 3-day standard may result in an “incomplete” for this rotation until such time as the activity requirements are satisfied.

Persistent tardiness or unexcused absences may constitute a failure on a rotation and will be reflected in the student’s evaluation under professionalism.

Students are required to remain at their rotation until the time designated by the Clinical Rotations Office and the supervising physician. The student will not leave the current rotation site prior to the last scheduled day of the rotation without the consent of the on-site Director of Medical Education and/or supervising physician. The Associate Dean, Clinical Sciences must also approve any early departures from an assigned rotation. Any unapproved early departure may result in a failing grade for the rotation.
Unexcused Absence

An absence from any rotation without approval will be regarded as an unexcused absence. In the event of an unexcused absence, a written explanation from the student must be sent to the Associate Dean, Clinical Sciences. The consequences of such an absence will be considered on a case by case basis.

Illness

Should a student experience an illness during the course of a clinical rotation, he/she should immediately notify the appropriate supervising physician of the intended absence. Should the illness necessitate an absence of more than 2 days, the supervising physician and the Clinical Rotations Office must be notified immediately. Additionally, for an absence of more than 3 days, the student must be seen by a physician for documentation and clearance to return to work. This documentation must be received before the student can return to work. If the Clinical Rotations Office does not receive such documentation, the student may fail the rotation. A student should not for any reason hesitate to report illness. The welfare of both the student and his/her contacts is the major consideration.

Temporary Absence

Temporary Absence is defined as a brief period of time spent away from rotation activities. Such leave is intended to allow the student to attend to daily matters that may arise in the course of the year. In order to be approved for a temporary leave, permission must be obtained from the supervising preceptor IN ADVANCE of the date the student is absent. It is intended that the student and supervising physician alike employ reason pertaining to this matter. Remember, a student is not allowed to miss more than 3 days of any given rotation.

Leave of Absence

Leave of Absence is defined as extended periods (more than 3 days) away from service rotation activities that may become necessary due to prolonged illness or personal matters of significant gravity. The supervising physician, the Associate Dean, Clinical Sciences and the Associate Dean, Student Affairs must be informed immediately of the absence. The procedure for requesting a leave of absence is outlined WCUCOM Student Catalog and Handbook, The Office of the Associate Dean, Clinical Sciences can then assist the student in designing a plan to make up time missed from a rotation.

Dismissal from a Rotation

Dismissal from a clinical rotation is a failure (F). The student will be referred to the Promotion and Matriculation Committee for recommended action. The student will be required to repeat the failed rotation and the student’s graduation date may be affected.

Schedule Changes

If you wish to change a scheduled core rotation in the OMS 3 year you must complete a change of rotation request form which is available in the Clinical Rotations Office and posted in the OMS 2016 shell on D2L. Once your request is submitted it will be reviewed by the Director of Clinical Rotations, the Associate Dean, Clinical Sciences and the Dean. You will be notified once the change is either approved or denied. Should you change a rotation without following proper procedure, you will not receive credit for the rotation and you will be referred to the Student Affairs Committee for unprofessional behavior.
**Attendance Policy for Professional Conferences (OMS 3 and OMS 4)**

WCUCOM is committed to providing quality medical education for our students. This experience includes excellence in academic and clinical medicine, research, and community service. In order to maximize this process, it is felt that participation in professional meetings can greatly enhance a student’s professional and personal growth.

Attendance at AOA-sponsored national meetings, osteopathic divisional society meetings, and AOA/osteopathic specialty meetings will be provisionally approved. All other meetings must have an individual request and be approved by the Associate Dean, Clinical Sciences. Only one professional conference will be allowed per student per year of clinical rotations. Any deviation from this policy must be approved by the Associate Dean, Clinical Sciences, on an individual basis.

Students on clinical rotations wishing to attend a provisionally approved professional meeting will submit a student travel request to the Associate Dean, Clinical Sciences, at least 30 days prior to the meeting, indicating the name and location of the professional meeting, sponsoring agency, and dates of prospective absence. Students must obtain permission from the Associate Dean, Clinical Sciences, and the Preceptor for the rotation on which they will be absent. A student travel request will be denied if the student is on probation, has unremediated failures, has a failing grade at the time of the request, or at the Dean’s discretion.

Meeting attendance must be documented. Each student will be required to submit a typed, report on the meeting and the value added to the student’s education. This will be forwarded to the Office of the Associate Dean, Clinical Sciences, within one week of return. Participation in professional meetings outside of normal WCUCOM curriculum is a privilege.

**Personal Insurance**

Students are required to have personal hospitalization/health insurance while on clinical rotations. Students must show evidence to the on-site Director of Medical Education or supervising physician at each site that health insurance is in force. Before beginning clinical rotations, students must provide verification of health insurance to the Clinical Rotations Office.

In the event of an injury or illness students must receive immediate care at the appropriate local health care facility. The facility and/or the student are responsible for all expenses related to the incident. This policy does not obligate WCU or WCUCOM to any financial responsibility.

If an injury, including needle-stick or other exposure, occurs in the course of fulfilling duties as an OMS 3 or OMS 4 student, the injury should be immediately addressed as indicated from a medical standpoint. Once this has occurred, the student who experiences an injury must report the incident to the supervising physician and the Office of the Associate Dean of Clinical Sciences and an incident occurrence report must be filed with the rotation site.

**NBOME – COMLEX Levels I and II**

WCUCOM requires that all students pass the COMLEX I, COMLEX II CE and COMLEX II PE examinations in order to graduate. Please refer to the WCUCOM Student Catalog and Handbook for details of school policy regarding these examinations.
Lawsuits, Litigation or Potential Legal Action

The Clinical Rotations Office must be notified immediately if a student becomes aware of a potential situation of litigation in which they may be involved. The student must keep this office informed in writing of any progression of legal action as it occurs.

Student Liability Insurance

A student is covered under the WCUCOM student liability policy only if the student’s participation in the rotation has been officially approved in writing by the WCUCOM Office of the Associate Dean of Clinical Sciences. This applies to required, selective, and elective rotations in the continental USA, Hawaii, and Alaska. No student liability coverage is provided outside of these designated areas, or while a student is on an international rotation.

Student Supervision and Chain of Command

WCUCOM credentials the preceptors who will supervise our students while on clerkship rotations. Under no circumstances should a student see patients under the supervision of a physician who has not been appropriately credentialed. If you are uncertain about the status of a particular potential preceptor, contact the Office of Clinical Rotations for clarification prior to participating in patient care activities with that physician.

The student will, at times, be guided by non-physician members of the health care team and administration. Students are expected to treat all members of the health care team administration and employees with respect and in a professional manner. In addition, all students will be expected to comply with the general rules established by the hospital, clinic, or office at which they are being trained. The supervising physician must be aware of his/her duties as it relates to timely review of student performance and documentation and sign off any transactions carried out by trainees.

Meals

Meals are the responsibility of the student. A hospital or rotation site may elect to provide meals for free or at a discount for rotating students. This is not a requirement.

Americans with Disabilities Act

Student with disabilities who are protected by the Americans with Disabilities Act of 1990 and require special accommodations should contact: Dr. Jim Weir, Associate Dean for Student Affairs of WCUCOM 601-318-6290. Please refer to the WCUCOM Student Catalog and Handbook for details of school policy regarding accommodation. Students with a disability are encouraged to discuss the physical demands of the rotation and possible accommodations with their preceptor.

Disaster Plan

In the event of closure or cancellations due to natural disaster or other emergency causes, the student should follow the disaster plan of their current clinical site. General information will be forwarded to local media, posted on the WCU website (http://wmcarey.edu), and sent via automated process to your WCU student e-mail address. Specific information regarding the continuation of coursework will be posted on the university’s course management system at https://elearning.wmcarey.edu. For up-to-the-minute alerts regarding emergency situations, sign up to receive notifications through Sader Watch, the
WCU emergency text message service. Sign up instructions can be found under ‘Current Students’ on the WCU homepage.

Housing

Many elective and selective rotation sites have made housing arrangements for students. Housing is NOT provided at every site. When provided, this housing is for students only. Students may have members of their families who accompany them on their rotations. However, the student must assume all responsibility and cost associated with family travel and housing. Housing for the family must be found and paid for by the student at no expense or inconvenience to the rotation site. Students are responsible for locating such housing on his or her own time before the rotation starts.

Title

All hospital personnel are expected to treat students as professionals at all times. Students will extend similar and appropriate courtesy to all hospital personnel at all times. Medical students may not be identified by the title of “Doctor” on their identification tag while in training. Students are to be referred to as “Student Doctor (your last name).” This title will be used whenever a student is referred to by WCUCOM/WCU faculty, WCUCOM/WCU staff and hospital personnel and must be used by the student whenever introducing themselves.

Background Checks

WCUCOM’s policies on background checks can be found in the WCUCOM Student Catalog and Handbook.

Immunizations

The student is required to carry his/her immunization record card and present it to the on-site Director of Medical Education or supervising physician at the beginning of each rotation. Students may be required to provide evidence of successful immunizations against certain diseases, negative x-ray results and other information meant to certify that the student is immune to or not carrying a potentially debilitating infectious disease. Sites requiring this verification will notify students of the requirement. If you have any questions regarding immunizations, please contact the Clinical Rotations Office.

Required documentation to begin rotations:

- Primary DPT series (minimum 3) and Tdap or T/D injection within last 10 years.
- Documentation of childhood polio vaccine (minimum 3).
- Documented month/day/year of at least 2 MMR injections, or documentation of childhood diseases.
- Documented dates for Hepatitis B injections (series of 3).
- Lab form that shows values for Hepatitis B, MMR, and Varicella immunity (only if immunization series is completed).
- A yearly PPD is required for you to participate in clinical rotations. You must update PPD within 6 and notify the clinical rotations office of the results within four (4) weeks of completing the test. Failure to meet this requirement will result in the student being placed on a leave of absence which may negatively impact graduation time.
- Current CPR and ACLS cards with legible expiration dates.
Injury Policy

If injured while on a rotation, the student must receive immediate care at the site. The facility where the incident took place is responsible for providing care. The facility and/or the student are responsible for all expenses related to the incident. This policy does not obligate the school to any financial responsibility. An incident occurrence report must be filed with the rotation site. Once the injury has been immediately addressed, the student who experienced the injury must report the incident to the supervising physician and the Clinical Rotations Office.

Cell Phone Use and Social Media

Restrict the use of your personal cell phone, including texting, to times when you are off-duty. Use of cell phones can inadvertently cause a breach of patient confidentiality when used in public areas. The student must be aware of these issues.

You are prohibited from posting any content that contains personal health information including patient images on any social media site (ex: Facebook, Twitter, etc.). You are also prohibited from using a social media site to provide medical advice or medical commentary or to use any social media site to make or recommend referrals to physicians.

Student/Patient Relationship

The relationship between an osteopathic medical student and a patient shall always be kept on a professional basis. A chaperone shall be present when indicated. A student shall not date or become intimately involved with a patient due to ethical and legal considerations.

Sexual Harassment

Any incidence of suspected sexual harassment should be reported immediately in writing to the supervising physician, on-site Director of Medical Education, and the Clinical Rotations Office. See the WCUCOM Student Catalog and Handbook for further details regarding the sexual harassment policy.

Any student who engages in sexually harassing behavior will be addressed as outlined in the WCUCOM Student Catalog and Handbook.

International Rotations

Should a student wish to rotate in an international setting, it will be considered on a case by case basis. In order to participate, the student must follow all policies and procedures for international rotations as set forth in the WCUCOM Student Catalog and Handbook.
Section IV

OMS 4 Rotation Policies

With the exception of the grading format and rotation scheduling, all policies and procedures as discussed in prior sections apply to students during their OMS 4 year.

Scheduling

The curriculum has been designed to allow every student the opportunity to participate in audition rotations and to explore areas of interest as they deem appropriate. The OMS 4 curriculum consists of 32 weeks of rotation experience. The rotations may be scheduled in 2, 3 or 4 week increments. A total of 16 weeks must be scheduled in medical specialties/subspecialties and 16 weeks must be scheduled in surgical specialties/subspecialties.

A student may opt to participate in a “nonclinical” elective such as research, medical education, or simulation medicine. The maximum number of weeks allowed for such an experience is 4 weeks. This rotation would replace a single medicine or a surgical rotation at the discretion of the student.

In order to foster a broad knowledge base and a well-rounded clinical experience, students may only rotate for a total of 8 weeks within any one specialty. Additional rotations in subspecialties within a field of interest will be considered for approval by the Associate Dean, Clinical Sciences.

At least one rotation during the OMS 4 year must take place at a facility that serves as the base institution for an AOA accredited residency program.

All rotations must be scheduled through the OMS 4 clinical rotations counselor. The scheduling procedure is as follows:

1) A Rotation Request Form should be completed and submitted to the OMS 4 rotations counselor
2) The rotation request will be approved by the Director of Clinical Rotations and the Associate Dean, Clinical Sciences,
3) The counselor will assist the student in obtaining appropriate documentation, letters of agreement, etc. to allow for the rotation to take place
4) The student must notify the OMS 4 rotations counselor as soon as they receive verification from the rotation site that they have been accepted to rotate

Rotation request forms must be received a minimum of 60 days prior to the first day of the requested rotation. It is the responsibility of the student to decide on a rotation schedule for their OMS 4 year. However, should a student have difficulty with scheduling a particular month’s rotation, they will be assigned to a rotation by the Clinical Rotations Office. Examples of such difficulty might include cancelation of a rotation by a hospital or preceptor less than 60 days in advance of the rotation start date.

The clinical rotations office will, at the request of the student, assist them in finding rotations for their OMS 4 year. The student should provide the OMS4 rotations counselor with the dates of the desired rotation and the specialty that they wish to study during that timeframe. The counselor will provide the student with a listing of available preceptors within that specialty that are available during the requested time frame. It will be the responsibility of the student to contact that preceptor and inquire if they would be willing to precept them for the requested rotation. All paperwork will need to be completed as noted above.
In the event that a student wishes to change a rotation that has previously been scheduled, they must submit a new rotation request form and follow the procedure outlined above. This new request must be submitted a minimum of 60 days prior to the start date of the rotation.

**Student Evaluation (Grading) for OMS 4 Rotations**

A significant component of the rotation grade is the WCUCOM preceptor evaluation of student performance which is completed by the supervising physician. It is recommended that a preceptor use this form as a guide to provide feedback to the student midway through his rotation. The form should be discussed with the student again prior to submission at the end of the rotation.

The preceptor is required to verify logs submitted by the student. Upon receipt and review of all assignments, logs and evaluations, a grade will be computed using the following guidelines:

**55% WCUCOM Preceptor Evaluation of Student Performance:** This must be received before a student can be assigned a final course grade. This evaluation is available online for student review as soon as it is completed by the preceptor. If the student disagrees with an evaluation they may mark it as such and the Associate Dean, Clinical Sciences will assess the grade and discuss with the preceptor as appropriate.

**20% Completion of OMM case study module and quiz:** The OMS 4 curriculum includes a case study discussing indications for OMT with common presenting complaints and OMM video module. This is accompanied by a quiz. Both the module and the quiz are available in D2L in the shell entitled OMS2015. There are “short” modules tailored for rotations of 2 week duration as well as longer modules to be taken on 3 or 4 week rotations. The modules are also tailored for completion on medical vs. surgical rotations. Successful completion of the module as well as the quiz grade will be used for this portion of the student evaluation. The student is still encouraged to perform OMT as appropriate and to document OMT procedures on their patient logs.

**15% EBM Component:** The student is expected to select one article per week appropriate to the specialty in which they are rotating and critically evaluate each of these articles using the evaluation tools found on D2L. Evaluation forms, along with a copy of the articles, should be submitted to the Clinical Rotations Office via the “dropbox” in the D2L Shell labeled OMS 2015 within 7 days of completion of the rotation.

**10% Completion of clinical patient logs and procedure logs and evaluation forms:** All logs are due at the end of each rotation. Logs must be submitted electronically through E*Value and a hard copy submitted to the OMS 4 Rotations Counselor. All evaluations of preceptor/rotation will be released by E*Value on the final day of the rotation and should be completed online. All logs and evaluations must be submitted within 7 calendar days of completion of the rotation. Failure to comply with this deadline will result in a reduction of 2 points (20%) of this grade for each week of delay. (ie: submitted > 7 days and < 14 days after completion will receive a maximum of 8 points, 14 days but < 21 days, 6 points etc.) Should all paperwork not be received within 5 weeks (35 days) after completion of the rotation the student will receive a zero for this component and will fail the rotation.
The overall grade for each 1-month rotation will be calculated as follows:

- % grade on WCUCOM Preceptor Evaluation of Student Performance X 55
- + % completion of clinical patient logs, procedure logs X 10
- + % grade for OMT module completion and quiz grade X 20
- + % completion of EBM component (article review) X 15

Total of 100 points possible

Grade assignment:

Grades cannot be computed until all 5 of the grade components have been submitted to the WCUCOM Clinical Rotations Office. Student grades will not be posted until the Student Evaluation of the Preceptor has been received for that rotation.

Fail: The student has an overall score of less than 70% OR:
- Scores below 70% on the WCUCOM Preceptor Evaluation of Student Performance
- Scores below 70% on the OMM module exam
- Failure to complete a minimum of 1 article review of the EBM curriculum
- Failure to submit appropriate logs and evaluations within 35 days of completion of the rotation

Pass: The student has an overall score of 70-79% AND:
- Scores at least 70% on the WCUCOM Preceptor Evaluation of Student Performance
- Scores at least a 70% on the OMM module exam
- Analysis of at least one article per the EBM curriculum submitted
- Logs and evaluations have been received before the 35 day deadline.

High pass: The student has an overall score of 85% AND:
- Scores at least 80% on the WCUCOM Preceptor Evaluation of Student Performance
- Scores at least 80% on the OMM module exam
- Analysis of one article per week of the rotation to fulfill the EBM curriculum submitted
- Logs and evaluations have been received before the 35 day deadline.

Pass with honors: The student has an overall score of 95% AND:
- Scores at least 90% on the WCUCOM Preceptor Evaluation of Student Performance
- Scores at least 90% on the OMM module exam
- Analysis of one article per week of the rotation to fulfill the EBM curriculum submitted
- Logs and evaluations have been received before the 35 day deadline.

Challenge of Grades

Any grade challenges or questions are to be directed to the Associate Dean, Clinical Sciences. The student may request a review of the challenge by the Promotions and Matriculation Committee, if the Associate Dean’s response requires clarification.
**Remediation**

Failure of the OMT module will require remediation by essay or examination at the discretion of the OPP faculty. Successful remediation of this component will be required in order to pass the rotation.

Failure of a clinical rotation will result in referral to the P&M Committee. The committee will make a recommendation to the Dean based upon the overall academic performance of the individual student. P+M recommendations can range from allowing the student to remediate the individual rotation to recommending that the student be dismissed from WCUCOM.

The following is the curriculum for OMS 3 and 4 years for William Carey University College of Osteopathic Medicine.

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WILLIAM CAREY UNIVERSITY
COLLEGE OF OSTEOPATHIC MEDICINE

FAMILY MEDICINE I CLINICAL ROTATION SYLLABUS (OMS 7311)
2014-2015
(8 credit hrs)

COURSE DESCRIPTION/OVERALL COURSE GOALS:

Family medicine physicians provide first contact, ongoing and preventative care to all patients regardless of age, gender, or culture. They provide care in both office and hospital settings. Family medicine is an essential component of the primary care infrastructure of the US health care delivery system.

Family medicine I is a one month core rotation that provides an introduction to the specialty and should introduce the following components of the specialty:

1. Prevention and screening
2. Coordination of health care
3. Continuity of service
4. Family and community dynamics.

This rotation will emphasize the diagnosis and management of commonly encountered diseases in patients that present in both an acute fashion or for routine management of chronic disease.

Throughout the rotation the osteopathic philosophy will be emphasized, namely that: (1) the body is a unit, the person is a unit of body, mind, and spirit; (2) the body is capable of self-regulation, self-healing, and health maintenance; (3) structure and function are reciprocally related; and (4) rational treatment is based upon an understanding of the basic principles of body unity, self-regulation, and the interrelationship of structure and function.

Osteopathic family physicians strive to treat their patients as part of the medical team, they endeavor to know their patient as a whole, and they make every effort to teach their patients how to achieve optimal health. The student will develop an understanding of the body and how all the systems change throughout the cycle of life: from birth, through childhood, adolescence, adulthood, aging and death.

1. Osteopathic Principles and Practices (OPP)
All preceptors are expected to encourage and verify application of osteopathic principles and osteopathic preceptors are expected to encourage and evaluate appropriate use of osteopathic manipulative treatment (OMT).
The student will:
- Integrate Osteopathic Principles and Practices into all patient care activities.
  - Consider the patient as a whole, including mind, body and spirit during patient encounters and when formulating treatment plans
  - Include the patient’s family/support network in decision making when appropriate
- Perform osteopathic structural examinations and osteopathic manipulative therapy (OMT) in the evaluation and management of patients when appropriate
- Demonstrate competence in the application of OMT appropriate to family medicine.
  - Learn to adapt osteopathic diagnostic skills and treatments across all age groups.
  - Recognize somatic dysfunction across all age groups
  - Adapt osteopathic treatment modalities to adequately and safely treat patients in all age groups.

2. **Medical Knowledge (MK)**
Preceptors are expected to evaluate medical knowledge, understanding of disease process, and the student’s ability to apply cognitive skills in differential diagnosis.

The student will:
- Apply knowledge of physiology, pathology, anatomy, microbiology, biochemistry and other basic sciences to the diagnosis and treatment of their patients.

3. **Patient Care (PC)**
Preceptors are expected to evaluate the student’s ability to consistently demonstrate competence in patient care, including the ability to competently take a history, perform a physical examination, assist with medical procedures, and provide appropriate follow-up care.

The student will:
- Obtain an accurate and focused history in patients of all ages
- Perform an accurate, organized and appropriately thorough physical examination on patients of all ages
- Generate an accurate differential diagnosis
- Propose appropriate diagnostic testing to narrow their differential diagnosis
- Appropriately interpret ECG, Laboratory and radiographic studies
- Propose an evidence-based management plan that includes pharmacologic and non-pharmacologic therapy for patients with acute presentations
- Perform or assist in the performance of the following procedures under supervision. (It is understood that the opportunity to perform all of these procedures may not occur on all rotations. It is intended that the student perform all of these procedures at some point during their family medicine 1-3 rotations).
  - Galbreath technique
  - Facial effleurage
  - Lymphatic pump
  - Rib-raising
  - Rapid strep testing
  - Venipuncture
  - Intramuscular injection
Subcutaneous injection
- Suturing simple lacerations
- Skin biopsies
- Lavage of ear canal
- I+D of abscess
- Prostate examination
- PAP smear/vaginal examination
- Rectal examination with hemoccult of stool

4. **Interpersonal and Communication Skills (ICS)**
Preceptors are expected to evaluate student competence in verbal and written communication as well as the student’s skills in oral presentation, their history and physical examination findings.

The student will:
- Demonstrate ability to effectively communicate with patients of all ages.
- Demonstrate ability to identify and communicate with caregivers.
- Use medical terminology as appropriate in communicating with other health care professionals.
- Avoid the use of medical terminology when communicating with patients, unless they provide explanation of these terms.
- Document details of a patient encounter in a clear, concise and organized fashion.
- Present patients to the preceptor and other health care providers in a complete, organized and concise fashion.

5. **Professionalism (P)**
Preceptors are expected to evaluate professionalism, including respect, compassion, cultural sensitivity, accountability, attitude and responsiveness to feedback.

The student will:
- Display a nonjudgmental attitude.
- Demonstrate empathy when dealing with patients as well as with members of the health care team.
- Maintain patient confidentiality.
- Be punctual.
- Adhere to the WCUCOM dress code.
- Complete assigned tasks in a timely fashion.
- Accept feedback without taking personal offense.
- Use feedback as a means toward personal and professional growth.

6. **Practice Based Learning and Improvement (PBLI)**
Preceptors are expected to evaluate the student’s practice based learning and improvement skills; including the student’s ability to integrate evidence based medicine into patient care.

The student will:
- Access online resources and review articles such as Up-To-Date or the Cochrane Data Base to obtain information regarding the care of their patients.
- Perform appropriate literature searches to obtain articles that pertain to their management of patients in the clinical setting.
- Apply evidence-based medicine when diagnosing patients and/or developing their management plan.
- Assess the quality of evidence they obtain from various resources.
7. Systems-Based Practice (SBP)
Preceptors are expected to evaluate the student’s ability to understand his/her role as a member of the health care team, the student’s understanding of local community medical resources, and the student’s understanding of providing cost effective medicine.

The student will:
- Be respectful toward all members of the healthcare team
- Provide effective and timely communication to other members of the team
- Identify barriers to optimal patient care
- Identify community resources available to enhance patient care

The following are common presentations of acute illness seen in primary care practice and competency based goals specific to these presentations.

Upper Respiratory Symptoms
The student shall:
- Differentiate upper respiratory tract from lower respiratory tract symptoms. (MK, PC)
- Describe common pathogens that cause upper respiratory infections (MK)
- Conduct an appropriate examination of the HEENT and respiratory systems. (PC)
- Be able to obtain an appropriate throat swab and interpret a rapid strep test in evaluation of a sore throat. (PC)
- List OMT techniques commonly utilized for the treatment of upper respiratory complaints and describe the mechanism by which these techniques assist the patient in achieving wellness(OPP)
- Be able to demonstrate the Galbreath technique and be able to teach it to the patient/parent. (OPP)
- Be able to demonstrate facial effleurage, the lymphatic pump and rib raising techniques. (OPP)
- Describe the pathogens that most commonly cause URI, sinusitis, pharyngitis and otitis media, epiglottitis and croup (MK)
- Develop a differential diagnosis of noninfectious causes of upper respiratory symptoms (PC, MK)
- Perform a search for criteria to determine a patient’s pretest probability for streptococcal pharyngitis and discuss the results(PBLI)

Joint pain and injury
The student shall:
- Elicit an appropriate history including mechanism of injury (PC)
- Perform an appropriate musculoskeletal examination of the ankle, knee, jip, shoulder, and wrist
  - Incorporate specialized physical examination techniques (such as Tinnel’s sign or Anterior Drawer Test, etc.) as appropriate (PC)
- Discuss the pathophysiology that leads to overuse syndromes. (MK)
- Differentiate between acute injuries and overuse syndromes(PC)
- Demonstrate the Spencer technique and describe it’s indications and contraindications (OPP)

Pregnancy (new diagnosis) and complications of early pregnancy
The student shall:
- Obtain an accurate and complete sexual history, menstrual history and gynecologic history(PC)
- Present a differential diagnosis for amenorrhea (PC)
- Describe the hormonal changes that occur in early pregnancy (MK)
 Define threatened abortion, inevitable abortion, incomplete abortion (MK)
 List factors that increase the risk for ectopic pregnancy (MK)
 Perform and describe the limitations of a urine pregnancy test (PC)

**Abdominal pain**  
 *The student shall:*
  - Perform an accurate and appropriate abdominal examination (PC)
  - Describe indications for immediate surgical referral (MK, PC)
  - Provide a differential diagnosis based upon location of abdominal pain and physical examination findings (MK, PC)
  - Stratify the differential diagnosis of abdominal pain based upon age and comorbid diseases (PC)

**Common skin lesions and rashes**  
 *The student shall:*
  - Describe the dermatologic findings using appropriate terminology (PC, ICS)
  - Describe the ABCDE rules for diagnosing melanoma (MK, PC)
  - Develop a differential diagnosis of the rash/lesion (PC)
  - Identify skin rashes and lesions associated with other underlying illnesses (MK, PC)

**Abnormal vaginal bleeding**  
 *The student shall:*
  - Obtain an accurate and complete sexual history, menstrual history and gynecologic history (PC)
  - Describe the difference between ovulatory and anovulatory menstrual disorders (MK)
  - List indications for endometrial biopsy (MK, PC)
  - Develop an evaluation plan for a patient with abnormal vaginal bleeding (PC)

**Low back pain**  
 *The student shall:*
  - Differentiate chronic from acute low back pain (PC, MK)
  - List indications for imaging in acute low back pain (MK, PC)
  - Conduct an appropriate and thorough low back and neurologic examination (PC)
  - Provide OMT when applicable (OPP)
  - Identify contraindications to OMT (OPP)
  - Describe findings consistent with nerve root or spinal cord compression (MK, PC)

**Cough**  
 *The student shall:*
  - Obtain an appropriate history including risk factors for lung cancer, COPD (PC, MK)
  - Develop a differential diagnosis of cough that includes infectious and inflammatory causes, as well as neoplasias, drug effects and other non-pulmonary causes of cough (MK, PC)
  - Recognize pneumonia and CHF on chest X-ray (PC)

**Chest Pain**  
 *The student shall:*
  - Obtain an appropriate history, including risk factors for coronary artery disease, acute aortic dissection and pulmonary embolus (PC, MK)
  - Describe the pathophysiology behind acute MI, thoracic aneurysm and pulmonary embolism (MK)
• Provide a differential diagnosis that identifies potential life threatening illnesses (PC)
• Develop a diagnostic plan to rule out life threatening causes of chest pain (PC)
• Interpret ECGs in the setting of acute chest pain (PC)
• Identify pneumonia and pneumothorax on chest x-ray (PC)

**Headache**
*The student shall:*
• Obtain an appropriate history of the headache, which includes location and quality of pain, nature of onset and headache pattern/chronicity (PC)
• Identify potential life threatening causes of headache (MK)
• List indications for imaging in the setting of acute headache (PC, PBLI)
• Perform OMT in appropriate patients (OPP)

**Vaginal Discharge**
*The student shall:*
• Obtain an appropriate menstrual, gynecologic and sexual history (PC)
• Perform a gynecologic examination under supervision (PC)
• Interpret a wet prep and KOH prep of vaginal secretions (PC)
• Describe the pathogens most likely to cause vaginitis, cervicitis and pelvic inflammatory disease in the US. (MK)

**Dysuria:**
*The student shall:*
• Differentiate simple urinary tract infection from subacute and acute pyelonephritis (MK, PC)
• Identify the most common pathogens that cause UTI in females and in males < 40 and older than 40 years of age. (MK)
• Interpret a urinalysis

**Dizziness**
*The student shall:*
• Differentiate vertigo from light-headedness and syncope (MK, PC)
• Describe features in the history and physical examination that suggest peripheral vs. central causes of vertigo (MK, PC)
• Perform an appropriate HEENT and neurologic examination, including assessing cerebellar function (PC)
• Perform the Dix-Hallpike maneuver to assess for peripheral vertigo (PC)
• Perform Epley’s maneuver when appropriate (OPP)

**Dyspnea/Wheezing**
*The student shall:*
• Obtain an appropriate pulmonary and cardiac history, including risk factors for COPD and coronary artery disease (PC)
• Classify patients with asthma as mild intermittent, moderate and severe (MK, PBLI)
• Describe the pathophysiology of asthma and COPD (MK)
• Identify common bacterial causes of pneumonia (MK)
• Identify pneumonia, COPD and CHF on chest x-ray (PC)

**Fever:**
The student shall:
- Perform an age appropriate history and physical examination of the febrile patient (PC)
- Identify common etiologies of fever in patients of different age groups (MK)
- Identify life threatening causes of fever (PC)
- Develop an appropriate management plan, using antibiotic therapy only when indicated (PC)

**Depression:**
The student shall:
- Use a validated screening tool to assess suicidality of patients presenting acutely depressed (MK, PC, PBLI)
- Differentiate organic from psychiatric causes of illness (MK, PC)
- Describe the neurochemistry of depressive disorder (MK)
- Describe the mechanism of action of commonly used antidepressants (MK)
- Perform an appropriate history that assess for substance abuse in the depressed patient (PC)

**Male genitourinary complaints**
The student shall:
- Obtain an appropriate and detailed sexual history (PC)
- Assess for signs and symptoms of prostatic hypertrophy (PC)
- Assess for risk of prostatic cancer (MK, PC)
- List common pathogens responsible for UTI, prostatitis and urethritis (MK)
- Perform a prostate examination (PC)

**Leg Swelling**
The student shall:
- Provide a differential diagnosis for bilateral vs. unilateral leg swelling (PC, MK)
- List indication for venous ultrasound to assess for deep venous thrombosis (MK, PC)

The following are competency based learning goals for commonly seen chronic illnesses being treated in the primary care setting.

**Asthma/COPD**
The student shall:
- Differentiate between asthma and COPD and discuss differences in pathophysiology and treatment (MK, PC)
- Recognize obstructive pattern on pulmonary function testing (PC)
- Recognize hyperinflation on chest x-ray (PC)
- Counsel patients on smoking cessation (PC, ICS)
- Demonstrate proper use of meter-dosed inhalers to patients when they are prescribed (PC, ICS)

**Diabetes mellitus**
The student shall:
- List signs and symptoms of hyper/hypoglycemia (MK)
- Perform a diabetic foot examination (PC)
- Discuss the utility of hemoglobin A1c in management of diabetic patients (PC)
**Hyperlipidemia**

*The student shall:*
- Become familiar with the ATP-III guidelines (PBLI)
- Interpret lipid profiles (PC)
- Counsel patients on a low fat/low cholesterol diet (PC)

**Obesity**

*The student shall:*
- Define criteria for the diagnosis of obesity (PBLI)
- Calculate BMI (PC)
- Obtain a dietary and fitness history (PC)

**Hypertension:**

*The student shall:*
- Measure an accurate manual blood pressure (PC)
- Discuss the pathophysiology of HTN and end-organ damage (MK)
- Become familiar with the JNC-8 guidelines (PBLI)
- Define hypertension across multiple age groups with multiple comorbidities (MK)

**Congestive heart failure:**

*The student shall:*
- Describe the pathophysiology of right vs. left sided heart failure and contrast the physical findings (MK, PC)
- Recognize findings consistent with CHF on chest x-ray(PC)
- Formulate a management plan, including identifying patients who require inpatient management.(PC)
- Stratify patients using the NY classification of CHF (MK, PBLI)

**Coronary artery disease:**

*The student shall:*
- Perform an appropriate history, identifying risk factors for CAD(MK, PC)
- Apply an evidence-based tool to risk stratification of patients( PBLI)
- Identify ECG changes consistent with acute myocardial infarction and identify the area of occlusion (PC, MK)

**Arthritis:**

*The student shall:*
- Differentiate between rheumatoid and osteoarthritis (PC, MK)
- Describe the pathophysiology behind gout and pseudogout(MK)
- Identify x-ray changes seen in rheumatoid and osteoarthritis(PC)
- List the diagnostic criteria of fibromyalgia (PC, MK)

**Chronic Back Pain:**

*The student shall:*
- Define chronic low back pain
- Obtain a medication history and formulate a pain management plan
- Perform OMT as appropriate for pain management and treatment of somatic dysfunction
**Osteoporosis**
*The student shall:*
- Identify risk factors for osteoporosis (MK, PC)
- Differentiate between osteoporosis and osteopenia using the T-score (PC)
- Discuss the risk benefits of current available treatment regimens (PC, PBLI)
- Discuss the role of diet and exercise in the prevention and management of osteoporosis (MK, PC)

**Anxiety:**
*The student shall:*
- Describe the spectrum of anxiety disorders (MK, PC)
- Discuss the pharmacotherapeutic options for treatment of anxiety disorder (MK, PC)

**Dementia:**
*The student shall:*
- Perform a screening examination for cognitive decline (PC)
- Interpret the Mini-mental status examination (PC)
- Identify medications that may worsen symptoms of dementia (PC, MK)
- Assess aspects of the patients living situation that may positively or negatively impact their ability to function (PC)

**TEXTBOOKS (Required):**
- *Bates' Guide to Physical Examination and History Taking, 11th Edition.* Lippincott Williams & Wilkins
- *DiGiovanna: Osteopathic Approach to Diagnosis and treatment. 3rd ed.* Lippincott Williams & Wilkins

**Other Recommended Resources:**
- John Hopkin’s Hospital: *Harriet Lane Handbook, 19th ed.* Elsivier

**Online Resources:**

**COURSE REQUIREMENTS:**

Attendance, participation, grading components, etc. are all listed in the introductory portion of this manual and apply to all OMS 3 core rotations.

Logs: All logs are to be completed on-line using the E-value system. They must then be printed, signed by your preceptor and returned to your rotation counselor by fax, email, mail or in person within 7 days of completion of your rotation.
OP+P Assignment:
The articles assigned to this rotation are:
1) Osteopathic Manipulative Medicine for Carpal Tunnel Syndrome
2) An Osteopathic Approach to Type 2 Diabetes Mellitus

They are available on D2L. In order to obtain credit for an article the student must read the article and achieve a 70% on the quiz. The student may reread the article and take the test a second time if they do not successfully pass on the first attempt. Only two attempts will be allowed for each quiz.

End of Rotation Examination:
The end of rotation examination will be released on D2L on the last weekday of the calendar month at 4pm. The test will close at 6pm. Contact the clinical rotations office at 601-318-6094 in the event of technical difficulties when taking the examination.

Reading Assignment:
See chart below for the full details of required/suggested readings and activities. In order to fully understand required elements of family medicine and provide additional detail to answer questions that arise while on rotation, additional reading may be necessary. It is suggested that you pace yourself accordingly. Your preceptor may also assign readings/activities in addition to these listed.

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WILLIAM CAREY UNIVERSITY
COLLEGE OF OSTEOPATHIC MEDICINE

FAMILY MEDICINE II CLINICAL ROTATION SYLLABUS (OMS 7312)
2014-2015
(8 credit hrs)

PREREQUISITES: FAMILY MEDICINE I

COURSE DESCRIPTION

Family Medicine II is one month, third-year core rotation that provides increased experience in the specialty, allowing the student to build upon skills developed on their first family medicine rotation. During this rotation, emphasis will be placed on the utility of OMT in the primary care setting. In addition, students will gain increased exposure to the role of the family physician as the coordinator of care for their diverse patient population.

Throughout the rotation, the osteopathic philosophy will be emphasized, namely that: (1) the body is a unit, the person is a unit of body, mind, and spirit; (2) the body is capable of self-regulation, self-healing, and health maintenance; (3) structure and function are reciprocally related; and (4) rational treatment is based upon an understanding of the basic principles of body unity, self-regulation, and the interrelationship of structure and function.

Osteopathic family physicians strive to treat their patients as part of the medical team, they endeavor to know their patient as a whole, and they make every effort to teach their patients how to achieve optimal health. The student will develop an understanding of the body and how all the systems change throughout the cycle of life: from birth, through childhood, adolescence, adulthood, aging and death.

1. Osteopathic Principles and Practices (OPP)
All preceptors are expected to encourage and verify application of osteopathic principles and osteopathic preceptors are expected to encourage and evaluate appropriate use of osteopathic manipulative treatment (OMT).

The student will:
- Integrate Osteopathic Principles and Practices into all patient care activities.
  - Consider the patient as a whole, including mind, body and spirit during patient encounters and when formulating treatment plans
  - Include the patient’s family/support network in decision making when appropriate
- Perform osteopathic structural examinations and osteopathic manipulative therapy (OMT) in the evaluation and management of patients when appropriate
• Demonstrate competence in the application of OMT appropriate to family medicine.
  o Learn to adapt osteopathic diagnostic skills and treatments across all age groups.
  o Recognize somatic dysfunction across all age groups
  o Adapt osteopathic treatment modalities to adequately and safely treat patients in all age groups.

2. Medical Knowledge (MK)
Preceptors are expected to evaluate medical knowledge, understanding of disease process, and the student’s ability to apply cognitive skills in differential diagnosis.

The student will:
• Apply knowledge of physiology, pathology, anatomy, microbiology, biochemistry and other basic sciences to the diagnosis and treatment of their patients.

3. Patient Care (PC)
Preceptors are expected to evaluate the student’s ability to consistently demonstrate competence in patient care, including the ability to competently take a history, perform a physical examination, assist with medical procedures, and provide appropriate follow-up care.

The student will:
• Obtain an accurate and focused history in patients of all ages
• Perform an accurate, organized and appropriately thorough physical examination on patients of all ages
• Generate an accurate differential diagnosis
• Propose appropriate diagnostic testing to narrow their differential diagnosis
• Appropriately interpret ECG, Laboratory and radiographic studies
• Propose an evidence-based management plan that includes pharmacologic and non-pharmacologic therapy for patients with acute presentations
• Perform or assist in the performance of the following procedures under supervision. (It is understood that the opportunity to perform all of these procedures may not occur on all rotations. It is intended that the student perform all of these procedures at some point during their family medicine 1-3 rotations
  o Rapid strep testing
  o Venipuncture
  o Intramuscular injection
  o Subcutaneous injection
  o Suturing simple lacerations
  o Skin biopsies
  o Lavage of ear canal
  o I+D of abscess
  o Prostate examination
  o PAP smear/vaginal examination
  o Rectal examination with hemoccult of stool
4. **Interpersonal and Communication Skills (ICS)**
Preceptors are expected to evaluate student competence in verbal and written communication as well as the student’s skills in oral presentation their history and physical examination findings.

*The student will:*
- Demonstrate ability to effectively communicate with patients of all ages.
- Demonstrate ability to identify and communicate with caregivers.
- Use medical terminology as appropriate in communicating with other health care professionals.
- Avoid the use of medical terminology when communicating with patients, unless they provide explanation of these terms.
- Document details of a patient encounter in a clear, concise and organized fashion.
- Present patients to the preceptor and other health care providers in a complete, organized and concise fashion.

5. **Professionalism (P)**
Preceptors are expected to evaluate professionalism, including respect, compassion, cultural sensitivity, accountability, attitude and responsiveness to feedback.

*The student will:*
- Display a nonjudgmental attitude.
- Demonstrate empathy when dealing with patients as well as with members of the health care team.
- Maintain patient confidentiality.
- Be punctual.
- Adhere to the WCUCOM dress code.
- Complete assigned tasks in a timely fashion.
- Accept feedback without taking personal offense.
- Use feedback as a means toward personal and professional growth.

6. **Practice Based Learning and Improvement (PBLI)**
Preceptors are expected to evaluate the student’s practice based learning and improvement skills—including the student’s ability to integrate evidence based medicine into patient care.

*The student will:*
- Access online resources and review articles such as Up-To-Date or the Cochrane Data base to obtain information regarding the care of their patients.
- Perform appropriate literature searches to obtain articles that pertain to their management of patients in the clinical setting.
- Apply evidence-based medicine when diagnosing patients and/or developing their management plan.
- Assess the quality of evidence they obtain from various resources.

7. **Systems-Based Practice (SBP)**
Preceptors are expected to evaluate the student’s ability to understand his/her role as a member of the health care team, the student’s understanding of local community medical resources, and the student’s understanding of providing cost effective medicine.

*The student will:*
- Be respectful toward all members of the healthcare team.
• Provide effective and timely communication to other members of the team
• Identify barriers to optimal patient care
• Identify community resources available to enhance patient care

8. Competency Based Learning and Objectives

This rotation is meant to build upon skills learned during the student’s first family medicine rotation. In addition to goals and objectives set forth for acute and chronic presentations on the syllabus for family medicine 1.

The student shall:
• Improve their ability to stratify their differential diagnosis for common presenting complaints, identifying those that are most likely or those that are most life-threatening (PC)
• Develop a management plan that narrows their differential diagnosis, leading to a final diagnosis (MK, PC)
• Perform appropriate OMT for a variety of complaints such as: vertigo, headache, low back pain, pneumonia, otitis media, sinusitis, shoulder pain, carpal tunnel syndrome, ankle pain and foot pain (OPP)
• Define and describe direct vs. indirect types of OMT, including articulatory, balanced ligamentous tension, counterstrain, osteopathy in the cranial field, muscle energy, HVLA, visceral, lymphatic, soft tissue and myofascial release techniques (OPP)
• Describe the basic principles of treatment of functional technique, facilitated positional release, ligamentous articular strain and Still techniques. (OPP)
• Effectively communicate with patients and their families regarding risks, benefits and alternatives associated with the use of OMT (OPP)
• Under preceptor supervision, develop a referral plan for patients requiring specialized diagnostic testing or evaluation, learning to complete appropriate documentation (PC, SBP)
• Under preceptor supervision, follow with the results of consultations and relay these results to patients within the practice (SBP, ICS)
• Under preceptor supervision, coordinate social services, home health care, physical therapy for patients being treated in their home environment (SBP)
• Identify barriers to patient access to care within the office/clinic/hospital system that the student is currently experiencing (SBP)
• Identify the roles of the various providers within the office and how they function to positively or negatively impact patient care (SBP)

TEXTBOOKS (Required):
• Rakel. *Textbook of Family Medicine, 8th Edition, Elsevier*
• *Bates' Guide to Physical Examination and History Taking, 11th Edition*. Lippincott Williams & Wilkins
• *DiGiovanna: Osteopathic Approach to Diagnosis and treatment. 3rd ed*. Lippincott Williams & Wilkins

Other Recommended Resources on Vitalsource:
• John Hopkin’s Hospital: *Harriet Lane Handbook, 19th ed*. Elsevier
Online Resources:

Learners TV Dissection Videos:  www.learnerstv.com/Free-medical-video-lecture-courses.htm


NBOME Blueprint for COMAT on Osteopathic Principles and Practice:
And http://www.nbome.org/docs/COMAT-Osteopathic_Principles_and_Practice-OL.pdf

COURSE REQUIREMENTS:

Attendance, participation, grading components, etc. are all listed in the introductory portion of this manual and apply to all OMS 3 core rotations.

Logs: All logs are to be completed on-line using the E-value system. They must then be printed, signed by your preceptor and returned to your rotation counselor by fax, email, mail or in person within 7 days of completion of your rotation.

OP+P Assignment:

The articles assigned to this rotation are:
1. American Osteopathic Association Guidelines for Osteopathic Manipulative Treatment (OMT) for Patients With Low Back Pain
2. Effects of Comprehensive Osteopathic Manipulative Treatment on Balance in Elderly Patients: A Pilot Study

They are available on D2L. In order to obtain credit for an article the student must read the article and achieve a 70% on the quiz. The student may reread the article and take the test a second time if they do not successfully pass on the first attempt. Only two attempts will be allowed for each quiz.

End of Rotation Examination:

The end of rotation examination for this month is the COMAT covering Osteopathic Principles and Practices. The examination will take approximately 2.5 hours to complete. You will need to download the examination in advance as directed by the NBOME. The examination may only be administered in a proctored environment. As such, it will be offered during the final 3 weekdays of your rotation, the timing to be determined by the availability of your proctor. You will be notified of the time and place for the examination by the clinical rotations office prior to the 20th of the month. Contact the clinical rotations office at 601-318-6094 if you have questions regarding this process.
<table>
<thead>
<tr>
<th>Rotation day</th>
<th>Topic</th>
<th>Blueprints</th>
<th>Rakel</th>
<th>DiGiavanna</th>
<th>Other</th>
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<td>Review of Osteopathic Exam</td>
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<td>Chapter 111: Section on Nasal Sinuses (pp 611-614)</td>
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<td>Chest pain</td>
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<td>Osteopathic Manipulation</td>
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<td>Back Pain</td>
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<td>Chapter 11</td>
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<td>Cough</td>
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<td></td>
<td>Fatigue</td>
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<td></td>
<td>Heartburn</td>
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<td>7</td>
<td>Dizziness/Vertigo</td>
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<td>Chapters 103-106</td>
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<td>8</td>
<td>Headache</td>
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<td>9</td>
<td>Hematuria</td>
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<td>Proteinuria</td>
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<td>Lymphadenopathy</td>
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<td>Nausea and vomiting</td>
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<td>Painful Joints</td>
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<td>13</td>
<td>Pharyngitis</td>
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<td>Research the Centor Criteria in predicting Strep pharyngitis—do they work?</td>
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<td></td>
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<td>14</td>
<td>OMT of the Pelvis and Sacrum</td>
<td>Chapter 57</td>
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<td>OMT of the Pelvis and Sacrum</td>
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<td>Chapter 62-68</td>
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<td>16</td>
<td>Jaundice in Adults</td>
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<tr>
<td>17</td>
<td>Respiratory Infection</td>
<td>Chapter 28</td>
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<td>Research resistance patterns of Streptococcal and mycoplasma pneumonia</td>
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<tr>
<td>18</td>
<td>Shortness of Breath</td>
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<td>19</td>
<td>Shoulder Pain</td>
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<td>20</td>
<td>Somatization</td>
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<td>Swelling</td>
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<td></td>
<td>Weight Loss</td>
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</table>
PREREQUISITES: FAMILY MEDICINE II

COURSE DESCRIPTION

Family medicine III is an opportunity to continue to build skills in physical diagnosis. At this stage, students should hone their ability to formulate management plans for patients of all ages and genders. This rotation offers an increased focus on the role of family and the community on patient’s health and healthcare decision making. There will also be an increased emphasis on preventative medicine and recommendations for health screening examinations.

Throughout the rotation, the osteopathic philosophy will be emphasized, namely that: (1) the body is a unit, the person is a unit of body, mind, and spirit; (2) the body is capable of self-regulation, self-healing, and health maintenance; (3) structure and function are reciprocally related; and (4) rational treatment is based upon an understanding of the basic principles of body unity, self-regulation, and the interrelationship of structure and function.

Osteopathic family physicians strive to treat their patients as part of the medical team, they endeavor to know their patient as a whole, and they make every effort to teach their patients how to achieve optimal health. The student will develop an understanding of the body and how all the systems change throughout the cycle of life: from birth, through childhood, adolescence, adulthood, aging and death.

1. **Osteopathic Principles and Practices (OPP)**

All preceptors are expected to encourage and verify application of osteopathic principles and osteopathic preceptors are expected to encourage and evaluate appropriate use of osteopathic manipulative treatment (OMT).

The student will:

- Integrate Osteopathic Principles and Practices into all patient care activities.
  - Consider the patient as a whole, including mind, body and spirit during patient encounters and when formulating treatment plans
  - Include the patient’s family/support network in decision making when appropriate
- Perform osteopathic structural examinations and osteopathic manipulative therapy (OMT) in the evaluation and management of patients when appropriate
- Demonstrate competence in the application of OMT appropriate to family medicine.
  - Learn to adapt osteopathic diagnostic skills and treatments across all age groups.
Recognize somatic dysfunction across all age groups
Adapt osteopathic treatment modalities to adequately and safely treat patients in all age groups.

2. **Medical Knowledge (MK)**
Preceptors are expected to evaluate medical knowledge, understanding of disease process, and the student’s ability to apply cognitive skills in differential diagnosis.

*The student will:*
- Apply knowledge of physiology, pathology, anatomy, microbiology, biochemistry and other basic sciences to the diagnosis and treatment of their patients.

3. **Patient Care (PC)**
Preceptors are expected to evaluate the student’s ability to consistently demonstrate competence in patient care, including the ability to competently take a history, perform a physical examination, assist with medical procedures, and provide appropriate follow-up care.

*The student will:*
- Obtain an accurate and focused history in patients of all ages
- Perform an accurate, organized and appropriately thorough physical examination on patients of all ages
- Generate an accurate differential diagnosis
- Propose appropriate diagnostic testing to narrow their differential diagnosis
- Appropriately interpret ECG, Laboratory and radiographic studies
- Propose an evidence-based management plan that includes pharmacologic and non-pharmacologic therapy for patients with acute presentations
- Perform or assist in the performance of the following procedures under supervision. (It is understood that the opportunity to perform all of these procedures may not occur on all rotations. It is intended that the student perform all of these procedures at some point during their family medicine 1-3 rotations).
  - Galbreath technique
  - Facial effleurage
  - Lymphatic pump
  - Rib-raising
  - Rapid strep testing
  - Venipuncture
  - Intramuscular injection
  - Subcutaneous injection
  - Suturing simple lacerations
- Skin biopsies
- Lavage of ear canal
- I+D of abscess
- Prostate examination
- PAP smear/vaginal examination
- Rectal examination with hemoccult of stool

4. **Interpersonal and Communication Skills (ICS)**
Preceptors are expected to evaluate student competence in verbal and written communication as well as the student’s skills in oral presentation their history and physical examination findings.

*The student will:*
- Demonstrate ability to effectively communicate with patients of all ages.
- Demonstrate ability to identify and communicate with caregivers.
- Use medical terminology as appropriate in communicating with other healthcare professionals
- Avoid the use of medical terminology when communicating with patients, unless they provide explanation of these terms
- Document details of a patient encounter in a clear, concise and organized fashion
- Present patients to the preceptor and other healthcare providers in a complete, organized and concise fashion.

5. **Professionalism (P)**
Preceptors are expected to evaluate professionalism, including respect, compassion, cultural sensitivity, accountability, attitude and responsiveness to feedback.

*The student will:*
- Display a nonjudgmental attitude
- Demonstrate empathy when dealing with patients as well as with members of the health care team
- Maintain patient confidentiality
- Be punctual
- Adhere to the WCUCOM dress code
- Complete assigned tasks in a timely fashion
- Accept feedback without taking personal offense
- Use feedback as a means toward personal and professional growth

6. **Practice Based Learning and Improvement (PBLI)**
Preceptors are expected to evaluate the student’s practice based learning and improvement skills—including the student’s ability to integrate evidence based medicine into patient care.

*The student will:*
- Access online resources and review articles such as Up-To-Date or the Cochrane Data base to obtain information regarding the care of their patients
- Perform appropriate literature searches to obtain articles that pertain to their management of patients in the clinical setting
- Apply evidence-based medicine when diagnosing patients and/or developing their management plan
- Assess the quality of evidence they obtain from various resources.
7. **Systems-Based Practice (SBP)**

Preceptors are expected to evaluate the student’s ability to understand his/her role as a member of the health care team, the student’s understanding of local community medical resources, and the student’s understanding of providing cost effective medicine.

The student will:

- Be respectful toward all members of the healthcare team
- Provide effective and timely communication to other members of the team
- Identify barriers to optimal patient care
- Identify community resources available to enhance patient care

It is assumed that patients will continue to hone their skills by completing goals and objectives that were set forth in family medicine 1 and 2 throughout this month. In addition, the following competency based objectives have been developed. During this rotation, the student shall:

- Develop an evidence-based health promotion/disease prevention plan for patients of any age or gender (PC, MK)
- Find and apply the current guidelines for immunizations in all ages (PBLI, MK, PC)
- Perform a focused history that elicits information regarding patient compliance, self-management and barriers to care (PC, SBP)
- Define primary, secondary and tertiary disease prevention (MK)
- Describe the current guidelines for the management of the following disorders: Diabetes mellitus, Hypertension, Hyperlipidemia, Coronary artery disease, Congestive heart failure, and Atrial fibrillation (PBLI, MK)
- Describe the current screening guidelines for the following disorders: Breast cancer, Cervical cancer, Colon cancer, Prostate cancer, and Osteoporosis (PBLI, MK)
- Assess the fall risk in an elderly patient (MK, PC)
- Develop a health maintenance plan for a patient with diabetes mellitus, a patient with hypertension and a patient with hyperlipidemia. (PC)
- Describe the core components of child preventative care, including immunizations, physical examination and pediatric screening examinations.(PC, MK)
- Define “wellness” as a concept that transcends “not being sick”(MK)
- Define the stages of change as they apply to patient compliance/behavior change when dealing with chronic illness or substance abuse (MK, PC)
- Council patients regarding tobacco cessation, excessive alcohol use, medication compliance and maintenance of an exercise regimen (PC, ICS)

**TEXTBOOKS (Required):**

- Bates’ *Guide to Physical Examination and History Taking, 11th Edition*. Lippincott Williams & Wilkins
- DiGiovanni: *Osteopathic Approach to Diagnosis and Treatment*. 3rd ed. Lippincott Williams & Wilkins

**Other Recommended Resources:**

- John Hopkin’s Hospital: *Harriet Lane Handbook, 19th ed.* Elsivier
Online Resources:


CDC.Gov for Clinical guidelines

AAFP.Org for Clinical guidelines

COURSE REQUIREMENTS:

Attendance, participation, grading components, etc. are all listed in the introductory portion of this manual and apply to all OMS 3 core rotations.

Logs: All logs are to be completed on-line using the E-value system. They must then be printed, signed by your preceptor and returned to your rotation counselor by fax, email, mail or in person within 7 days of completion of your rotation.

OP+P Assignment:

The articles assigned to this rotation are:

1) Osteopathic Manipulative Treatment of Somatic Dysfunction Among Patients in the Family Practice Clinic Setting: A Retrospective Analysis
2) Patient Satisfaction and Clinical Outcomes Associated with Osteopathic Manipulative Treatment

They are available on D2L. In order to obtain credit for an article the student must read the article and achieve a 70% on the quiz. The student may reread the article and take the test a second time if they do not successfully pass on the first attempt. Only two attempts will be allowed for each quiz.

End of Rotation Examination:

The end of rotation examination for this month is the COMAT covering Family Medicine. The examination will take approximately 2.5 hours to complete. You will need to download the examination in advance as directed by the NBOME. The examination may only be administered in a proctored environment. As such, it will be offered during the final 3 weekdays of your rotation, the timing to be determined by the availability of your proctor. You will be notified of the time and place for the examination by the clinical rotations office prior to the 20th of the month. Contact the clinical rotations office at 601-318-6094 if you have questions regarding this process.

Reading Assignment:

See chart below for the full details of required/suggested readings and activities. In order to fully understand required elements of family medicine and provide additional detail to answer questions that arise while on rotation, additional reading may be necessary. It is suggested that you pace yourself accordingly. Your preceptor may also assign readings/activities in addition to these listed. You may notice that the required reading is not as extensive—that is to allow you to review material from your previous family medicine rotations to solidify you knowledge base and allow you to prepare for the COMAT.
# Reading Logs for Family Medicine III

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<th>Rotational day</th>
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<th>Blueprints</th>
<th>Rakel</th>
<th>Other</th>
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<tbody>
<tr>
<td>4</td>
<td>Osteoporosis</td>
<td>Chapter 50</td>
<td>Review ACP Guidelines on treatment(Article on D2L)</td>
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<td>Abnormal Pap smear</td>
<td>Chapter 57</td>
<td>Chapter 6 Appropriate pages</td>
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<td>Breast Mass</td>
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<td>Preconception Counseling</td>
<td>Chapter 63</td>
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<td>Common Medical Problems in Pregnancy</td>
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<td>Postpartum Care</td>
<td>Chapter 65</td>
<td>Antenatal Risk Factors for Postpartum Depression (Article on D2L)</td>
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<td>Adolescent Medicine</td>
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<td>Geriatric Assessment</td>
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<td>Common Medical Problems in Older Adults</td>
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<td>Dementia</td>
<td>Chapter 77</td>
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<td>19</td>
<td>Urinary Incontinence</td>
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<td>Nursing Home and End of Life Care</td>
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WILLIAM CAREY UNIVERSITY
COLLEGE OF OSTEOPATHIC MEDICINE

EMERGENCY MEDICINE I CLINICAL ROTATION SYLLABUS (OMS 7321)
2014-2015
(8 credit hrs)

COURSE DESCRIPTION

Introduction

Emergency medicine 1 is a one month core rotation that provides the student with the unique opportunity to care for patients of all ages presenting with acute complaints. Many of the patients encountered on this rotation will have life-threatening illnesses or injuries that require immediate stabilization. Others will present with complaints that can be diagnosed and then treated in the outpatient setting. As such, this rotation will aid students in differentiating patients with unstable or acute illnesses that will require hospitalization from those patients who may be safely followed in the community setting. The volume of patients seen in the emergency department, along with the acuity of their presentation, is ideal for students to develop the ability to perform a history and physical examination that focuses on issues pertinent to the chief complaint. This rotation also offers an opportunity to gain experience in a broad range of procedures while under the direct supervision of the preceptor.

Working in an emergency department requires a student to be effective in communication and organization of medical information. The emergency department staff works as a team and expects the student to be a part of that team while taking care of seriously ill or injured patients. It is important that students look and act professional during their rotation. The student must always remember the student represent WCU-COM in a professional manner on every rotation.

Osteopathic Relevance

Osteopathic Medicine provides valuable diagnostic and treatment methodologies that can be resources in the care of patients presenting to an emergency department. Students should learn to recognize that the emergency department embraces the concept of treating the entire patient. This includes recognizing the body is a whole unit, and the presenting emergent complaint is often accompanied with issues that affect not only the patient’s physical body but also their ability to cope with their emotional response. Recognizing the role of family, friends and community support systems is integral to meeting the patient’s total needs.
1. **Osteopathic Principles and Practices (OPP)**
All preceptors are expected to encourage and verify application of osteopathic principles and osteopathic preceptors are expected to encourage and evaluate appropriate use of osteopathic manipulative treatment (OMT).

The student will:
- Integrate Osteopathic Principles and Practices into all patient care activities.
  - Consider the patient as a whole, including mind, body and spirit during patient encounters and when formulating treatment plans
  - Include the patient’s family/support network in decision making when appropriate
- Perform osteopathic structural examinations and osteopathic manipulative therapy (OMT) in the evaluation and management of patients when appropriate
- Demonstrate competence in the application of OMT appropriate to emergency medicine.
  - Learn to adapt osteopathic diagnostic skills and treatments across all age groups.
  - Recognize somatic dysfunction across all age groups
  - Adapt osteopathic treatment modalities to adequately and safely treat patients in all age groups.

2. **Medical Knowledge (MK)**
Preceptors are expected to evaluate medical knowledge, understanding of disease process, and the student’s ability to apply cognitive skills in differential diagnosis.

The student will:
- Apply knowledge of physiology, pathology, anatomy, microbiology, biochemistry and other basic sciences to the diagnosis and treatment of their patients.

3. **Patient Care (PC)**
Preceptors are expected to evaluate the student’s ability to consistently demonstrate competence in patient care, including the ability to competently take a history, perform a physical examination, assist with medical procedures, and provide appropriate follow-up care.

The student will:
- Obtain an accurate and focused history in patients of all ages
- Perform an accurate, organized and appropriately thorough physical examination on patients of all ages
- Generate an accurate differential diagnosis
- Propose appropriate diagnostic testing to narrow their differential diagnosis
- Appropriately interpret ECG, Laboratory and radiographic studies
- Propose an evidence-based management plan that includes pharmacologic and non-pharmacologic therapy for patients with acute presentations
- Monitor the response to therapeutic interventions
- Educate patients about preventable injuries and illnesses
- Perform or assist in the performance of the following procedures under supervision. (It is understood that the opportunity to perform all of these procedures may not occur on all rotations. It is intended that the student perform all or the majority of these procedures at some point during their emergency medicine rotations).
• Perform arterial blood gases
• Insert Foley catheters
• Insert NG tubes
• Insert peripheral IVs
• Obtain vital signs on children < 3 years old
• Pelvic examinations
• Rectal examinations
• Interpret EKGs
• Interpret radiographs
• Suturing of wounds
• I+D of abscesses
• Chest compressions during ACLS
• Lumbar puncture

• Observe or assist in the performance of the following procedures
  • Bag-valve mask ventilation
  • Endotracheal intubation
  • Central line placement
  • Chest tube placement

4. **Interpersonal and Communication Skills (ICS)**
Preceptors are expected to evaluate student competence in verbal and written communication as well as the student’s skills in oral presentation their history and physical examination findings.

*The student will:*
  • Demonstrate ability to effectively communicate with patients of all ages.
  • Demonstrate ability to identify and communicate with appropriate family members, medical power of attorney, or person of authority to speak on behalf of the patient.
  • Use medical terminology as appropriate in communicating with other health care professionals
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  • Document details of a patient encounter in a clear, concise and organized fashion
  • Present patients to the preceptor and other health care providers in a complete, organized and concise fashion.

5. **Professionalism (P)**
Preceptors are expected to evaluate professionalism, including respect, compassion, cultural sensitivity, accountability, attitude and responsiveness to feedback.

*The student will:*
  • Display a nonjudgmental attitude
  • Demonstrate empathy when dealing with patients as well as with members of the health care team
  • Maintain patient confidentiality
  • Be punctual
  • Adhere to the WCUCOM dress code
  • Complete assigned tasks in a timely fashion
  • Accept feedback without taking personal offense
  • Use feedback as a means toward personal and professional growth
6. **Practice Based Learning and Improvement (PBLI)**
Preceptors are expected to evaluate the student’s practice based learning and improvement skills—including the student’s ability to integrate evidence based medicine into patient care.

The student will:
- Access online resources and review articles such as Up-To-Date or the Cochrane Data base to obtain information regarding the care of their patients
- Perform appropriate literature searches to obtain articles that pertain to their management of patients in the clinical setting
- Apply evidence-based medicine when diagnosing patients and/or developing their management plan
- Assess the quality of evidence they obtain from various resources.
- Demonstrate ability to identify personal knowledge deficits

7. **Systems-Based Practice (SBP)**
Preceptors are expected to evaluate the student’s ability to understand his/her role as a member of the health care team, the student’s understanding of local community medical resources, and the student’s understanding of providing cost effective medicine.

The student will:
- Be respectful toward all members of the healthcare team
- Provide effective and timely communication to other members of the team
- Identify barriers to optimal patient care
- Identify community resources available to enhance patient care
- Be aware of medication and treatment costs

**Competency Based Learning Objectives by Core Content Area**

**Adult Resuscitation**
- Describe the pathophysiology of oxygenation and ventilation. (MK)
- Perform airway management techniques, including placing a patient on oxygen, opening the airway using the jaw thrust or head-tilt chin lift maneuver (PC)
- Identify and list treatment options for the following dysrhythmias: ventricular fibrillation; asystole; pulseless electrical activity; ventricular tachycardia; first, second, and third degree heart blocks. (MK, PC)
- List and describe the intravenous access techniques for the peripheral and central circulation. (PC)

**Trauma**
- Describe key components of the history in a multiple trauma patient. (MK, PC)
- Describe the four sequential phases of management of the multiple trauma patients. (MK)
- Outline the components of the primary and secondary trauma survey. (MK)
- Describe common injuries that provide an immediate life-threat and list physical examination findings that suggest these injuries. (MK, PC)
- Describe the management of commonly encountered immediate life threatening injuries. (MK, PC)
Shock
- Discuss the etiologies and pathophysiologic mechanisms of shock. (MK)
- Describe the physical findings of patients in varying degrees and types of shock. (PC)
- Discuss the management of the varying degrees and types of shock in adults and children. (PC, MK)

Chest Pain
- Describe the evaluation and management of the patient with chest pain including differential diagnosis (PC, MK)
- Describe the relative importance of the history, physical examination and diagnostic studies in risk stratification of chest pain patients (MK, PBI)
- Evaluate various patients of all ages with chest pain. (PC)

Dyspnea
- List the differential diagnosis of dyspnea. (MK)
- Describe the initial evaluation and management of the dyspneic patient. (MK, PC)
- Describe findings consistent with upper airway causes of dyspnea and the appropriate evaluation and management of upper airway causes of dyspnea. (MK, PC)
- Describe the presentation, evaluation and management of the patient with lower airway causes of dyspnea. (MK, PC)
- Describe the presentation, evaluation and management of patients with cardiovascular causes of dyspnea (MK, PC)
- Evaluate patients with dyspnea across all age ranges. (PC)
- Interpret chest radiographs and x-rays of the soft tissues of the neck in the context of the dyspneic patient. (PC, MK)

Altered Mental Status (Coma, Syncope, Seizures, Emergency Psychiatry)
- Discuss the pathophysiology and differential diagnosis of the comatose patient. (MK)
- List the critical actions in the management of a comatose patient. (MK, PC)
- List diagnostic studies and procedures used in evaluating the comatose patient. (PC)
- Demonstrate the evaluation of a comatose patient. (PC)
- Interpret cerebral CT scans. (PC)
- Demonstrate or verbalize the procedure for a lumbar puncture. (PC)
- Discuss the pathophysiology and differential diagnosis of syncope. (MK)
- Perform the history and physical examination pertinent to the evaluation of a patient with syncope. (PC)
- List the diagnostic studies and/or procedures used to evaluate the syncopal patient. (PC)
- Discuss the management of the syncopal patient. (PC)
- Discuss the evaluation and pathophysiology of seizures. (PC, MK)
- Discuss the management of seizures in the emergency department. (PC)
- Demonstrate the mental status examination and the psychiatric interview (PC, ICS).
- Demonstrate the evaluation and management of delirium and dementia.
- Differentiate between patients suffering from delirium and those with dementia (PC, MK).
- Describe the evaluation and management of the violent patient. (PC)
- Discuss protective measures for the patient and staff. (PC, SBP)
- Define involuntary commitment and it’s indications (MK, SBP)
- Describe the evaluation and management of the suicidal patient. (PC)
- Discuss involuntary commitment. (SBP)

**Headache**
- Describe the history and physical examination pertinent to the evaluation of a patient with headache. (PC)
- List indications for diagnostic studies and procedures. (PC, PBI)
- Describe the management of the patient with headache. (PC)
- Demonstrate neurologic exam and funduscopic exam. (PC)

**Fever**
- Contrast the evaluation and management of the febrile elderly, adult and child. (MK, PC)
- Highlight the important points of history, physical examination. (PC)
- Discuss indications for laboratory and other diagnostic tests. (PC)
- Describe the use of antibiotics and appropriate selection of antibiotics (MK, PC)
- Differentiate between patients requiring admission versus those who may be discharged. (PC)

**Abdominal Pain**
- List the key points to be obtained in the history and on the physical examination of the patient with abdominal pain (PC)
- List the differential diagnosis of abdominal pain and describe diagnoses that are more common in the elderly, adults and children. (MK, PC)
- Discuss the indications for laboratory and radiologic evaluation of the patient with abdominal pain. (MK, PK, PBLI)

**Vaginal Bleeding**
- List the causes of ovulatory and anovulatory bleeding and describe their emergency department management. (MK, PC)
- Describe the evaluation and management of the patient with suspected ectopic pregnancy. (PC)
- Discuss the causes, evaluation and management of early and late trimester bleeding during pregnancy. (MK, PC)
- Describe the classifications and miscarriage. (PC, MK)
- Perform pelvic exams under supervision. (PC)

**Ophthalmologic Emergencies**
- List the common causes of conjunctivitis, keratitis, and iritis (MK, PC)
- Describe their management of conjunctivitis, keratitis and iritis (MK, PC)
- Describe the presentation of acute angle closure glaucoma and periorbital cellulitis. (MK, PC)
- Describe the management of acute glaucoma and periorbital cellulitis. (MK, PC)
- Discuss the presentation, evaluation and management of corneal foreign bodies and abrasions, ocular penetration, hyphema, dislocated lens, retinal detachment and corneal burns. (MK, PC)
- Perform and document visual acuity. (PC)
- Perform a slit lamp examination. (PC)

**ENT Emergencies**
- Discuss the evaluation and management of the patient with epistaxis. (PC)
- Describe the vascular anatomy involved in anterior and posterior epistaxis (MK)
- Discuss the differential diagnosis of pharyngitis, appropriate history, physical examination, diagnostic studies, treatment and complications. (PC)
Musculoskeletal Injuries
- Describe the clinical presentation, evaluation and treatment of dislocation of the shoulder. (PC)
- Discuss the mechanisms of injury, presentation and management of fractures of the clavicle, humerus, radius, ulna, hip, femur, tibia and fibula, ankle and foot. (MK, PC)
- Discuss the evaluation and management of common sprains. (PC, MK)
- Describe the presentation, evaluation and management of common injuries and infections of the hand. (PC, MK)
- Describe the Salter-Harris classification of fractures. (MK)
- Discuss the treatment of “sprains” in the pediatric patient with open epiphyses. (MK, PC)

Core Content Area: Wound Care
- Describe how to appropriately evaluate a wound. (MK)
- Demonstrate wound cleansing, debridement and closure. (PC)
- Discuss contraindications to anesthetic use and appropriate dosage (MK)
- Describe appropriate selection of suturing materials, suturing technique, and application of dressings. (PC, MK)
- Perform simple wound care and closure under supervision (PC)
- List the indications for and use of tetanus, rabies, and antibiotic prophylaxis. (MK)

Toxicology
- Discuss initial stabilization and management of the poisoned patient with regard to ABC’s
- Describe the following toxidromes: anticholinergic, cholinergic, sympathomimetic, opioid and sedative/hypnotic (MK)
- Discuss the indications for the following agents: naloxone, glucose/glucagon, N-acetylcysteine, benzodiazepines (PC, MK)
- Describe methods to decontaminate patients exposed to an external toxin (PC)
- List agents used to prevent absorption or dilute a toxin (MK)
- List methods that may enhance excretion of toxins (MK, PC)

Pediatrics
- Discuss the evaluation of the pediatric patient with a febrile illness, the use of the Rochester criteria, and the necessity of a “septic work up.” (PC, PBI)
- Describe the presentation of the neonate with a serious illness such as meningitis, pneumonia, or sepsis. (PC)
- Perform accurate assessment of pediatric vital signs. (PC)

TEXTBOOK (Required):
- Blueprints Emergency Medicine 2nd ed. Lippincott Williams & Wilkins
- DiGiovanna: Osteopathic Approach to Diagnosis and treatment. 3rd ed. Lippincott Williams & Wilkins

Recommended Reference (Both Are available online through the WCU Library)
Online References:

Sonosite Ultrasound Learning Center: http://www.sonosite.com/education/learning-center

Emedicine Medscape Reference: www.emedicine.medscape.com

ECG Learning Center: www.ecg.utah.edu/ (in order to activate, type into browser, does not work with cut/paste)

COURSE REQUIREMENTS:

Attendance, participation, grading components, etc. are all listed in the introductory portion of this manual and apply to all OMS 3 core rotations.

Logs: All logs are to be completed on-line using the E-value system. They must then be printed, signed by your preceptor and returned to your rotation counselor by fax, email, mail or in person within 7 days of completion of your rotation.

OP+P Assignment:

The articles assigned to this rotation are:

1. Management of Benign Paroxysmal Positional Vertigo With the Canalith Repositioning Maneuvering the Emergency Department Setting
2. Estimating Cost of Care for Patients With Acute Low Back Pain A Retrospective Review of Patient Records

They are available on D2L. In order to obtain credit for an article the student must read the article and achieve a 70% on the quiz. The student may reread the article and take the test a second time if they do not successfully pass on the first attempt. Only two attempts will be allowed for each quiz.

End of Rotation Examination:

The end of rotation examination will be released on D2L on the last weekday of the calendar month at 4pm. The test will close at 6pm. Contact the clinical rotations office at 601-318-6094 in the event of technical difficulties when taking the examination.

Reading Assignment:

See chart below for the full details of required/suggested readings and activities. In order to fully understand required elements of emergency medicine and provide additional detail to answer questions that arise while on rotation, additional reading may be necessary. It is suggested that you pace yourself accordingly. Your preceptor may also assign readings/activities in addition to these listed.
# Reading Logs for Emergency Medicine I

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<th>Topic</th>
<th>Blueprint</th>
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<th>Other</th>
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<td>Acute Coronary Syndrome</td>
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<td>Abdominal Aortic Aneurysms</td>
<td>Chapter 6</td>
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<td>Chapter 9</td>
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<td>Tuberculosis</td>
<td>Chapter 15</td>
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<td>10</td>
<td>Trauma: General Approach, Head, Face</td>
<td>Chapters 16, 17, 18</td>
<td>Comparison of Canadian CT Rule with New Orleans Criteria Article (on D2L)</td>
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<td>Trauma to the Spine, Chest and Abdomen</td>
<td>Chapters 19, 20, 21</td>
<td>Do a Med-search to find and review the NEXUS Criteria to clear a patients C-spine after Trauma-Compare to Canadian Criteria</td>
<td>Sonosite online: FAST Exam of the RUQ</td>
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<td>Electrical Injuries</td>
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<td>Vaginal Bleeding in the third trimester</td>
<td>Chapter 39</td>
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PREREQUISITES: Emergency Medicine I

COURSE DESCRIPTION

Introduction

The Emergency Medicine Two rotation allows further experience in the care of very ill or injured patients. It allows the student to build on the basic knowledge and skills the student obtained in the Emergency Medicine One rotation. In addition to broadening the scope of their patient encounters, as students become more comfortable with their ability to assess patients in a rapid but thorough manner they should also begin to focus on the team dynamic in the department. The emergency department is an environment in which ongoing communication between physicians, nurses and staff; as well as between staff and patients, is a key component to successful patient care. Students should hone their communication skills in this setting.

Working in an Emergency Department requires a student to be effective in communication and organization of medical information. The Emergency Department works as a team and expects the student to be a part of that team while taking care of seriously ill or injured patients. The student will be challenged in basic knowledge of clinical medicine and expected to read on topics of interesting or topics suggested by the attending physician. It is important that students look and act professional during their rotation. The student must always remember the student represent WCU-COM in a professional manner on every rotation.

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- Discuss the etiologies and pathophysiologic mechanisms of shock. (MK)
- Describe the physical findings of patients in varying degrees and types of shock. (PC)
Discuss the management of the varying degrees and types of shock in adults and children. (PC, MK)

Chest Pain
- Describe the evaluation and management of the patient with chest pain including differential diagnosis (PC, MK)
- Describe the relative importance of the history, physical examination and diagnostic studies in risk stratification of chest pain patients (MK, PBI)
- Evaluate various patients of all ages with chest pain. (PC)

Dyspnea
- List the differential diagnosis of dyspnea. (MK)
- Describe the initial evaluation and management of the dyspneic patient. (MK, PC)
- Describe findings consistent with upper airway causes of dyspnea and the appropriate evaluation and management of upper airway causes of dyspnea. (MK, PC)
- Describe the presentation, evaluation and management of the patient with lower airway causes of dyspnea. (MK, PC)
- Evaluate patients with dyspnea across all age ranges. (PC)
- Interpret chest radiographs and x-rays of the soft tissues of the neck in the context of the dyspneic patient. (PC, MK)

Altered Mental Status (Coma, Syncope, Seizures, Emergency Psychiatry)
- Discuss the pathophysiology and differential diagnosis of the comatose patient. (MK)
- List the critical actions in the management of a comatose patient. (MK, PC)
- List diagnostic studies and procedures used in evaluating the comatose patient. (PC)
- Demonstrate the evaluation of a comatose patient. (PC)
- Interpret cerebral CT scans. (PC)
- Demonstrate or verbalize the procedure for a lumbar puncture. (PC)
- Discuss the pathophysiology and differential diagnosis of syncope. (MK)
- Perform the history and physical examination pertinent to the evaluation of a patient with syncope. (PC)
- List the diagnostic studies and/or procedures used to evaluate the syncopal patient. (PC)
- Discuss the management of the syncopal patient. (PC)
- Describe the evaluation and pathophysiology of seizures. (PC, MK)
- Discuss the management of seizures in the emergency department. (PC)
- Demonstrate the mental status examination and the psychiatric interview. (PC, ICS)
- Demonstrate the evaluation and management of delirium and dementia.
- Differentiate between patients suffering from delirium and those with dementia (PC, MK).
- Describe the evaluation and management of the violent patient. (PC)
- Discuss protective measures for the patient and staff. (PC, SBP)
- Define involuntary commitment and its indications. (MK, SBP)
- Describe the evaluation and management of the suicidal patient. (PC)
- Discuss involuntary commitment. (SBP)
**Headache**
- Describe the history and physical examination pertinent to the evaluation of a patient with headache. (PC)
- List indications for diagnostic studies and procedures. (PC, PBI)
- Describe the management of the patient with headache. (PC)
- Demonstrate neurologic exam and funduscopic exam. (PC)

**Fever**
- Contrast the evaluation and management of the febrile elderly, adult and child. (MK, PC)
- Highlight the important points of history, physical examination. (PC)
- Discuss indications for laboratory and other diagnostic tests. (PC)
- Describe the use of antibiotics and appropriate selection of antibiotics (MK, PC)
- Differentiate between patients requiring admission versus those who may be discharged. (PC)

**Abdominal Pain**
- List the key points to be obtained in the history and on the physical examination of the patient with abdominal pain (PC)
- List the differential diagnosis of abdominal pain and describe diagnoses that are more common in the elderly, adults and children. (MK, PC)
- Discuss the indications for laboratory and radiologic evaluation of the patient with abdominal pain. (MK, PK, PBLI)

**Vaginal Bleeding**
- List the causes of ovulatory and anovulatory bleeding and describe their emergency department management. (MK, PC)
- Describe the evaluation and management of the patient with suspected ectopic pregnancy. (PC)
- Discuss the causes, evaluation and management of early and late trimester bleeding during pregnancy. (MK, PC)
- Describe the classifications and miscarriage. (PC, MK)
- Perform pelvic exams under supervision. (PC)

**Ophthalmologic Emergencies**
- List the common causes of conjunctivitis, keratitis, and iritis (MK, PC)
- Describe their management of conjunctivitis, keratitis and iritis(MK, PC)
- Describe the presentation of acute angle closure glaucoma and periorbital cellulitis. (MK, PC)
- Discuss the management of acute glaucoma and periorbital cellulitis. (MK, PC)
- Discuss the presentation, evaluation and management of corneal foreign bodies and abrasions, ocular penetration, hyphema, dislocated lens, retinal detachment and corneal burns. (MK, PC)
- Perform and document visual acuity (PC)
- Perform a slit lamp examination (PC)

**ENT Emergencies**
- Discuss the evaluation and management of the patient with epistaxis (PC).
- Describe the vascular anatomy involved in anterior and posterior epistaxis (MK)
- Discuss the differential diagnosis of pharyngitis, appropriate history, physical examination, diagnostic studies, treatment and complications. (PC)
Musculoskeletal Injuries
- Describe the clinical presentation, evaluation and treatment of dislocation of the shoulder. (PC)
- Discuss the mechanisms of injury, presentation and management of fractures of the clavicle, humerus, radius, ulna, hip, femur, tibia and fibula, ankle and foot. (MK, PC)
- Discuss the evaluation and management of common sprains. (PC, MK)
- Describe the presentation, evaluation and management of common injuries and infections of the hand. (PC, MK)
- Describe the Salter-Harris classification of fractures. (MK)
- Discuss the treatment of “sprains” in the pediatric patient with open epiphyses. (MK, PC)

Core Content Area: Wound Care
- Describe how to appropriately evaluate a wound. (MK)
- Demonstrate wound cleansing, debridement and closure. (PC)
- Discuss contraindications to anesthetic use and appropriate dosage. (MK)
- Describe appropriate selection of suturing materials, suturing technique, and application of dressings. (PC, MK)
- Perform simple wound care and closure under supervision. (PC)
- List the indications for and use of tetanus, rabies, and antibiotic prophylaxis. (MK)

Toxicology
- Discuss initial stabilization and management of the poisoned patient with regard to ABC’s
- Describe the following toxidromes: anticholinergic, cholinergic, sympathomimetic, opioid and sedative/hypnotic. (MK)
- Discuss the indications for the following agents: naloxone, glucose/glucagon, N-acetylcysteine, benzodiazepines. (PC, MK)
- Describe methods to decontaminate patients exposed to an external toxin. (PC)
- List agents used to prevent absorption or dilute a toxin. (MK)
- List methods that may enhance excretion of toxins. (MK, PC)

Pediatrics
- Discuss the evaluation of the pediatric patient with a febrile illness, the use of the Rochester criteria, and the necessity of a “septic work up.” (PC, PBI)
- Describe the presentation of the neonate with a serious illness such as meningitis, pneumonia, or sepsis. (PC)
- Perform accurate assessment of pediatric vital signs. (PC)

TEXTBOOK (Required):
- Blueprints Emergency Medicine 2nd ed. Lippincott Williams & Wilkins
- DiGiovanna: Osteopathic Approach to Diagnosis and treatment. 3rd ed. Lippincott Williams & Wilkins

Recommended Reference (Both Are available online through the WCU Library.)
Online References:

Sonosite Ultrasound Learning Center: http://www.sonosite.com/education/learning-center

Emedicine Medscape Reference: www.emedicine.medscape.com

ECG Learning Center: www.ecg.utah.edu/

COURSE REQUIREMENTS:

Attendance, participation, grading components, etc. are all listed in the introductory portion of this manual and apply to all OMS 3 core rotations.

Patient logs, Procedure Logs, OMT Logs

All logs are to be completed on-line using the E-value system. They must then be printed, signed by your preceptor and returned to your rotation counselor by fax, email, mail or in person within 7 days of completion of your rotation.

OP+P Assignment:

The articles assigned to this rotation are:

1. Intramuscular Ketorolac Versus Osteopathic Manipulative Treatment in the Management of Acute Neck Pain in the Emergency Department: A Randomized Clinical Trial
2. Ultrasonography-Guided Osteopathic Manipulative Treatment for a Patient With Thoracic Outlet Syndrome

They are available on D2L. In order to obtain credit for an article the student must read the article and achieve a 70% on the quiz. The student may reread the article and take the test a second time if they do not successfully pass on the first attempt. Only two attempts will be allowed for each quiz.

End of Rotation Examination:

The end of rotation examination will be released on D2L on the last weekday of the calendar month at 4pm. The test will close at 6pm. Contact the clinical rotations office at 601-318-6094 in the event of technical difficulties when taking the examination.

Reading Assignment:

See chart below for the full details of required/suggested readings and activities. In order to fully understand required elements of emergency medicine and provide additional detail to answer questions that arise while on rotation, additional reading may be necessary. It is suggested that you pace yourself accordingly. Your preceptor may also assign readings/activities in addition to these listed.
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| 8           | Acetaminophen                         | 55      |                     | Emedicine: Acetaminophen toxicity http://emedicine.medscape.com/article/820200-
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COURSE DESCRIPTION

Internal medicine 1 is a one month core rotation that will provide the student with the opportunity to care for a variety of adult patients who present for routine management of chronic diseases, preventative care or with an acute process. The student will have the opportunity to further develop skills in his/her performance of a detailed medical history and physical examination; critical thinking and the development of an appropriate differential diagnosis; learn the indications for common diagnostic tests and become involved with all parameters of a patient’s evaluation needed to reach a diagnosis and develop a management plan. The rotation will address care both in hospital and ambulatory settings. The student will acquire an appreciation for the role of the internist as a generalist and a consultant.

The students will have an opportunity to accompany their supervising physicians while making hospital rounds, perform histories and physicals, participate in patient care, utilize their skills in osteopathic diagnosis, principles, practice and treatment, attend hospital lectures, and be introduced to hospital routine. Students in Medicine are expected to attend morning report, internal medicine conferences, and medical grand rounds. Presentation of cases by the students should be encouraged early and their performance should be observed and critiqued. Time will be provided for independent research, study, reading of journals, and evaluation.

Throughout the rotation the osteopathic philosophy will be emphasized, namely that: (1) the body is a unit, the person is a unit of body, mind, and spirit; (2) the body is capable of self-regulation, self-healing, and health maintenance; (3) structure and function are reciprocally related; and (4) rational treatment is based upon an understanding of the basic principles of body unity, self-regulation, and the interrelationship of structure and function.

Osteopathic physicians strive to treat their patients as part of the medical team, they endeavor to know their patient as a whole, and they make every effort to teach their patients how to achieve optimal health.
1. **Osteopathic Principles and Practices**
All preceptors are expected to encourage and verify application of osteopathic principles and osteopathic preceptors are expected to encourage and evaluate appropriate use of osteopathic manipulative treatment (OMT).

*The student will:*
- Integrate Osteopathic Principles and Practices into all patient care activities.
- Consider the patient as a whole, including mind, body and spirit during patient encounters and when formulating treatment plans
  - Include the patients family/support network in decision making when appropriate
  - Perform osteopathic structural examinations and osteopathic manipulative therapy (OMT) in the evaluation and management of patients when appropriate
  - Demonstrate competence in the application of OMT appropriate to internal medicine.
- Learn to adapt osteopathic diagnostic skills and treatments in hospitalized patients.
- Adapt osteopathic treatment modalities to adequately and safely treat elderly patients.

2. **Medical Knowledge**
Preceptors are expected to evaluate medical knowledge, understanding of disease process, and the student’s ability to apply cognitive skills in differential diagnosis.

*The student will:*
- Apply knowledge of physiology, pathology, anatomy, microbiology, biochemistry and other basic sciences to the diagnosis and treatment of their patients.

3. **Patient Care (PC)**
Preceptors are expected to evaluate the student’s ability to consistently demonstrate competence in patient care, including the ability to competently take a history, perform a physical examination, assist with medical procedures, and provide appropriate follow-up care.

*The student will:*
- Obtain an accurate and focused history in patients of all ages
- Perform an accurate, organized and appropriately thorough physical examination on patients of all ages
- Generate an accurate differential diagnosis
- Propose appropriate diagnostic testing to narrow their differential diagnosis
- Appropriately interpret ECG, Laboratory and radiographic studies
- Propose an evidence-based management plan that includes pharmacologic and non-pharmacologic therapy for patients with acute presentations
- Perform or assist in the performance of the following procedures under supervision. (It is understood that the opportunity to perform all of these procedures may not occur on all rotations. It is intended that the student perform all of these procedures at some point during their internal medicine 1 and 2 rotations).
  - Insertion of Foley catheter
  - Insertion NG tube
  - Insertion of peripheral IV
  - Venipuncture
  - Arterial blood gas
Interpretation of chest x-ray
Interpretation of EKG
Interpretation of pulmonary function test
Interpretation of urinalysis
Interpretation of CBC
Interpretation of electrolytes
Interpretation of renal function
Interpretation of liver panel
Interpretation thyroid profile
Interpretation of PSA
Stool test for occult blood
Review of slides with pathologist

• Observe or assist in the performance of the following procedures:
  o Cardiac stress testing
  o Echocardiography
  o Colonoscopy
  o Endoscopy
  o Bronchoscopy
  o Arthrocentesis
  o Central line placement
  o PICC line placement
  o Paracentesis
  o Thoracentesis
  o Endotracheal intubation
  o Management of patient on mechanical ventilator

4. Interpersonal and Communication Skills (ICS)
Preceptors are expected to evaluate student competence in verbal and written communication as well as the student’s skills in oral presentation their history and physical examination findings.

The student will:
• Demonstrate ability to effectively communicate with patients of all ages.
• Demonstrate ability to identify and communicate with caregivers.
• Use medical terminology as appropriate in communicating with other health care professionals
• Avoid the use of medical terminology when communicating with patients, unless they provide explanation of these terms
• Document details of a patient encounter in a clear, concise and organized fashion
• Present patients to the preceptor and other health care providers in a complete, organized and concise fashion
5. **Professionalism (P)**
Preceptors are expected to evaluate professionalism, including respect, compassion, cultural sensitivity, accountability, attitude and responsiveness to feedback.

*The student will:*
- Display a nonjudgmental attitude
- Demonstrate empathy when dealing with patients as well as with members of the health care team
- Maintain patient confidentiality
- Be punctual
- Adhere to the WCUCOM dress code
- Complete assigned tasks in a timely fashion
- Accept feedback without taking personal offense
- Use feedback as a means toward personal and professional growth

6. **Practice Based Learning and Improvement (PBLI)**
Preceptors are expected to evaluate the student’s practice based learning and improvement skills—including the student’s ability to integrate evidence based medicine into patient care.

*The student will:*
- Access online resources and review articles such as Up-To-Date or the Cochrane Data base to obtain information regarding the care of their patients
- Perform appropriate literature searches to obtain articles that pertain to their management of patients in the clinical setting
- Apply evidence-based medicine when diagnosing patients and/or developing their management plan
- Assess the quality of evidence they obtain from various resources.

7. **Systems-Based Practice (SBP)**
Preceptors are expected to evaluate the student’s ability to understand his/her role as a member of the health care team, the student’s understanding of local community medical resources, and the student’s understanding of providing cost effective medicine.

*The student will:*
- Be respectful toward all members of the healthcare team
- Provide effective and timely communication to other members of the team
- Identify barriers to optimal patient care
- Identify community resources available to enhance patient care

The following competency based learning objectives are organized by medical problem/presentation and are recommended as core content by the Clerkship Directors of Internal Medicine and the Society for General Internal Medicine. It is understood that a student may not encounter all of these presentations during a one month rotation on medicine. The following objectives should be studied throughout both this rotation and the internal medicine 2 rotation.
The Healthy Patient: Health Promotion, Disease Prevention and Screening:
The student shall:

• Define, describe and discuss the epidemiology and definition of hypertension, it’s contribution to cardiovascular risk and recommendations for screening (MK)
• Define, describe and discuss the epidemiology of hyperlipidemia, it’s contribution to cardiovascular risk, impact of treatment on risk, current recommendations for screening (MK)
• Define, describe and discuss the epidemiology of:
  o Breast cancer, including efficacy of screening modalities and current screening recommendations (MK)
  o Common skin cancers, including warning signs of melanoma (MK)
  o Cervical cancer, including the utility of PAP smear and current screening recommendations (MK)
  o Colorectal cancer, including the impact of early treatment and current screening recommendations (MK)
  o Prostate cancer, including impact of early treatment and current screening recommendations (MK)
• Discuss the risk, benefits and recommendations for adult immunization (MK)
• Perform a functional status assessment in geriatric patients (PC)
• Counsel patients regarding: safe sex practices, healthy diet, smoking cessation, alcohol abstinence or limitation partnering with the patient to facilitate change (PC, ICS)

Abdominal Pain:
The student shall:

• Differentiate visceral, parietal, and referred pain (MK)
• Describe and discuss the relative likelihood of common causes of abdominal pain based upon pain pattern and location of pain within the abdomen (MK)
• Describe signs and symptoms indicative of an acute/surgical abdomen (MK)
• Define indications for and interpret (with consultation): (MK, PC)
  o Abdominal ultrasound
  o Abdominal CT scan
  o Paracentesis fluid studies
  o Upper gastrointestinal endoscopy
  o Colonoscopy
  o Radionuclide studies of the hepatobiliary system
• Determine which patients should be referred to a gastroenterologist and which to a surgeon (PC, SBP)

Altered Mental Status
The student shall:

• Define, describe and discuss the differentiation of delirium, dementia and depression. (MK)
• The pathophysiology, symptoms and signs of the most common and serious causes of altered mental status including:
  o Metabolic causes (Hyper/hyponatremia, hyper/hypoglycemia, hypercalcemia, hyper/hypothyroidism, hypoxia/hypercapnea, hepatic encephalopathy, uremic encephalopathy, drug/alcohol intoxication or withdrawal) (MK)
- Structural lesions or in the CNS (MK)
- Vascular (CVA, TIA, ICH) (MK)
- Infectious (encephalitis, meningitis, urosepsis, endocarditis, pneumonia) (MK)
- Seizure/postictal state (MK)
- Low perfusion states/shock (MK)
- Discuss indications for and interpretation (with consultation) of Cranial CT, Cranial MRI and EEG (PC, MK)
- Write appropriate fluid and replacement orders for patients with common electrolyte and metabolic disturbances (PC, MK)
- Discuss management of patients with acute agitation or aggression (PC, MK)

**Anemia:**

*The student shall:*

- Define, describe and discuss the classification and causation of anemia based on red cell size: (MK)
  - Microcytic (Iron deficiency, thalassemic, sideroblastic)
  - Normocytic (hemolysis, acute blood loss, anemia of chronic disease, bone marrow suppression,)
  - Macrocytic: (ethanol abuse, B12 deficiency, Folate deficiency, liver disease, myelodysplastic syndromes, hypothyroidism)
- Diagnostic utility of various tests for iron deficiency (MK)
- Genetic basis of some forms of anemia (MK)
- Indications, contraindications and complications of blood transfusion (MK)
- Interpret the following laboratory values: CBC, including red cell indices; reticulocyte count, platelet count, Iron studies, B12 and folate levels, haptoglobin, lactic dehydrogenase, hemoglobin electrophoresis and peripheral smear (MK, PC)
- Define indications for and discuss interpretation (with consultation) of bone marrow biopsy (PC, MK)

**Back Pain**

*The student shall:*

- Discuss and describe the role diagnostic studies in the evaluation of back pain, including indications, limitations and cost (MK, PC)
- Define, discuss and describe the role and response to therapy of the various etiologies: bed rest, exercise, OMT, analgesics, NSAIDS, surgical intervention (MK, PC)
- Perform physical examination appropriate to discover nerve root or spinal cord compression, including DTR’s, strength and sensory testing of the lower extremity, straight leg raising test, testing for saddle anesthesia (PC)
- Interpret (with consultation) the following: Plain radiographs of the thoracic and lumbar spine, spinal CT, spinal MRI, radionuclide bone scan, bone densometry (MK, PC)
- Instruct patients in appropriate lifting and lifestyle measures to improve their back pain (PC, ICS)
Chest pain
The student shall:
- Define, describe and discuss signs and symptoms of chest pain that may be due to acute coronary syndrome (MK)
- Define, describe and discuss signs and symptoms characteristic of angina pectoris (MK)
- Define describe and discuss signs and symptoms of chest pain due to other cardiac causes such as: pericarditis, aortic dissection, valvular heart disease, non-ischemic cardiomyopathy, syndrome X (MK)
- Define, describe and discuss symptoms and signs of chest pain due to GI disorders such as esophageal disease, biliary disease, peptic ulcer disease, pancreatitis (MK)
- Define describe and discuss symptoms and signs of chest pain due to pulmonary disorders such as: pneumonia, pneumothorax, pleurisy, pulmonary embolism, pulmonary hypertension (MK)
- Define describe and discuss symptoms of chest pain due to psychogenic causes such as anxiety, hyperventilation and somatoform disorders (MK)
- List risk factors for development of coronary artery disease (MK)
- Describe the timing, pitch, location and radiation pattern of ausculted hear murmurs (PC, ICS)
- Interpret cardiac enzymes, d-dimer, 12 lead ECG and discuss the effect of pretest probability on interpretation. (MK, PC)
- Interpret (with consultation) and define indications for: echocardiogram, exercise stress test, stress thallium, dobutamine stress echocardiography, coronary angiography, CT for coronary calcification, CT A for pulmonary embolism, V/Q scan. (PC, MK)
- Perform a 12 lead ECG on patients (PC)

Cough/Dyspnea
The student shall:
- Define, differentiate and describe common causes of acute and chronic cough
- Define, differentiate and describe major organ systems/pathologic states causing dyspnea and their pathophysiology (including: cardiac, pulmonary, anemia, acid-base disturbances, other metabolic derangements, neuromuscular weakness, CNS derangements) (MK)
- Identify abnormal lung sounds such as wheezes, rhonchi and rales (PC)
- Interpret chest x-ray, pulse oximetry, ABG, PFTs, pleural fluid cell count and chemistries, PFTs, sputum gram stain, sputum culture and sensitivities (PC, MK)
- Interpret (With consultation) CT of the chest, sputum cytology, upper endoscopy, barium swallow (PC)
- Discuss the utility of supplemental oxygen therapy and the dangers of overly aggressive oxygen supplementation in some pathophysiologic states (MK)

Dysuria
The student shall:
- Define describe and discuss symptoms and signs of pyelonephritis and how to distinguish an upper from a lower UTI (MK)
- Identify common bacteria that cause UTI (MK)
- Discuss aspects of pathogenesis that affect UTI, including gender, sexual activity, diabetes, anatomic anomalies, instrumentation and indwelling catheters. (MK)
• Interpret urinalysis and urine culture (PC)

**Fever**
The student shall:

• Define, describe and discuss the physiology of the acute febrile response (MK)
• Define, describe and discuss the risk factors and co-morbidities that are important in determining the host response to infection (MK)
• Define, describe and discuss etiology of fever in patients with neutropenia, HIV, IV drug abuse, recent travel/immigration (MK)
• Perform a lumbar puncture under supervision (PC)
• Interpret the results of ESR, CSF fluid analysis, Stool cultures (PC)
• Develop an appropriate plan for empirical treatment with antibiotics while awaiting culture results (MK, PC)

**Fluid, Electrolyte and Acid-base disorders**
The student shall:

• Should be able to define, describe and discuss the pathophysiology of: hypo/hypervolemia, hypo/hypernatremia, Hypo/hyperkalemia, hypo/hypercalcemia, simple and mixed acid-base disorders, hypo/hyperphosphatemia, Hypo/hypermagnesemia, respiratory acidosis/alkalosis, metabolic acidosis/alkalosis (MK)
• Define, describe and discuss the differential diagnosis of hypo/hypernatremia in the setting of euvolemia, volume depletion and hypervolemia. (MK)
• Distinguish hyponatremia from pseudohyponatremia (MK, PC)
• Calculate anion gap and explain it’s relevance to determining causes of metabolic acidosis. (MK, PC)
• Define, describe and discuss the types of fluid preparation to use in the treatment of fluid and electrolyte disorders (MK)
• Interpret anion gap, urine and serum osmolality, Urinary sodium and fractional excretion of sodium (PC)
• Describe ECG changes seen with common electrolyte abnormalities (MK)
• Write orders to appropriately correct fluid and electrolyte deficits (MK, PC)
• Calculate the water deficit needed to treat hypernatremia (MK, PC)
• List and describe the mechanism of action of commonly used agents in the treatment of hyperkalemia. (MK, PC)

**GI Bleeding**
The student shall:

• List the common causes of upper an lower GI bleeding (MK)
• Distinguish signs and symptoms of lower vs. upper GI bleeding (MK, PC)
• Discuss the principles of stabilization and treatment of massive GI bleeding. (PC, MK)
• Define, describe and discuss the role of contributing factors such as H. pylori, NSAIDs, alcohol, tobacco and liver disease as they apply to GI bleeding.
• Describe the stages of hemorrhagic shock and the physical findings of each stage (MK, PC)

Rash
The student shall:
• Describe rashes and skin lesions using standard nomenclature (MK, ICS)
• Describe the ABCDE findings consistent with potentially malignant skin lesions (MK, PC)
• Define, describe and discuss the diagnosis, pathophysiology and typical presentations of common eczematous diseases. (MK)
• Define, describe and discuss the diagnosis, pathophysiology and typical presentations of common causes of maculopapular eruptions (MK)
• Define, describe and discuss the diagnosis, pathophysiology and typical presentations of common causes of papulosquamous dermatoses (MK)
• Define, describe and discuss the diagnosis, pathophysiology and typical presentations of common cutaneous infections (MK)
• Define, describe and discuss the diagnosis, pathophysiology and typical presentations of common cutaneous ulcers (MK)
• Define, describe and discuss the significance of purpura and petechiae (MK)
• Define, describe and discuss the diagnosis, pathophysiology and typical presentations of common drug eruptions (MK)
• Define, describe and discuss the diagnosis, pathophysiology and typical presentations of cutaneous manifestations of sexually transmitted disease (MK)
• Perform skin scraping and KOH testing in appropriate patients (PC)

Acute MI
The student shall:
• Define, describe and discuss the primary and secondary prevention of ischemic heart disease through the reduction of cardiovascular risk factors (MK)
• Define, describe and discuss pathogenesis, signs and symptoms of acute coronary syndromes including unstable angina, NSTEMI, STEMI (MK)
• Define, describe and discuss ECG findings and macromolecular markers and their role in diagnosis of AMI (MK, PC)
• Therapeutic options for acute MI and how they differ between STEMI and Non-STEMI (MK, PC)
• Define, describe and discuss the pathogenesis, signs and symptoms of the complications of acute MI (MK)
• Define, describe and discuss indications for cardiac catheterization (MK, PC)
• Define, describe and discuss indications for CABG. (PC, MK)
• Define, describe and discuss the Joint Commission guidelines for quality measures in treatment of acute MI. (MK, SBP)
• Interpret cardiac enzymes, ECG, chest radiograph (PC, MK))
• Interpret (With consultation) echocardiogram, cardiac stress testing, coronary angiography. (MK,
Acute Renal Failure (ARF) and Chronic Renal Disease

The student shall:

- Define, describe and discuss the distinction between prerenal, renal and postrenal causes of acute renal failure (MK)
- Define, describe and discuss the pathophysiology and major etiologies of prerenal ARF (MK)
- Define, describe and discuss the pathophysiology and major etiologies of intrinsic or “renal” ARF. (MK)
- Define, describe and discuss the pathophysiology and major etiologies of postrenal ARF (MK)
- Define, describe and discuss the pathophysiology and clinical findings of uremia (MK)
- Define, describe and discuss the most common etiologies of chronic kidney disease (CKD) (MK)
- Interpret urinalysis and 24 hour urine and discuss the significance of proteinuria in the setting of CKD. (MK, PC)
- Define, describe and discuss the use of ACE inhibitors and ARBs in the management of CKD (MK, PC)
- Define, describe and discuss the value of glycemic and hypertensive control in patients with CKD (MK, PC)
- Define, describe and discuss the principles of renal replacement therapy (dialysis) as well as common complications (MK, PC)
- Interpret urinalysis, serum electrolytes, and calculate an anion gap (MK, PC)
- Calculate the fractional excretion of sodium and appreciate how it may be used to differentiate pre-renal and intrinsic causes of ARF (MK, PC)
- Calculate the creatinine clearance (MK, PC)
- Interpret (with consultation) imaging studies of the kidney, such as CT or ultrasound (PC)

Common Cancers

The student shall:

- Define, describe and discuss primary prevention measures for common cancers (MK)
- Define, describe and discuss the clinical presentation, clinical course, complications and causes of death for the most common cancers (skin, colorectal, lung, breast, cervical and prostate)
- List indications for skin biopsy in a patient with a suspicious skin lesion (MK)
- List indications for colonoscopy in patients at risk for colon cancer (MK)
- List indications for breast biopsy in patients with a breast mass or abnormal screening mammogram (MK)
- List indications for lymph node biopsy in patients with suspicious lymphadenopathy (MK)
- Define, describe and discuss genetic considerations of selected cancers (hereditary nonpolyposis colon cancer, BRCA1/R=BRCA2, HER 2, Philadelphia chromosome/BRC-ABK) (MK)
- Define, describe and discuss the indications and role of palliative and hospice care in patients with end-stage cancer. (MK, PC)
- Interpret (with consultation) the results of skin, breast, colon, lung, prostate and lymph node
COPD/Obstructive Airway Disease
The student shall:

- Define, describe and discuss risk factors, symptoms, signs and typical clinical course of the common forms of COPD. (MK)
- Define, describe and discuss the common causes of acute exacerbations of COPD(MK)
- Define, describe and discuss the pathophysiology and major etiologies, evaluation and management of hypoxia and hypercapnea. (MK)
- Define, describe and discuss the role of genetics and alpha-1 antitrypsin deficiency in some patients with emphysema.(MK)
- Define, describe and discuss the epidemiology, risk factors, signs and symptoms and typical clinical course of asthma (MK)
- Identify common precipitants of bronchospasm in asthmatics (MK)
- Define, describe and discuss the therapies for COPD and asthma including bronchodilators, inhaled and systemic corticosteroids, antimicrobial agents, supplemental O2.
- List indications for influenza and pneumococcal vaccination in patients with chronic lung disease (MK)

Diabetes Mellitus
The student shall:

- Define, describe and discuss the diagnostic criteria for impaired fasting glucose and impaired glucose tolerance(MK)
- Define, describe and discuss the diagnostic criteria for type I and type II diabetes mellitus (MK)
- Define, describe and discuss the basic principles of the role of genetics in diabetes mellitus (MK)
- Describe the presenting symptoms in diabetic ketoacidosis (DKA) and nonketotic hyperglycemia (NKH) and discuss the pathophysiology and expected laboratory abnormalities seen in both disease processes. (MK, PC)
- Discuss the diagnosis and management of DKA and NKH. (MK, PC)
- List common precipitants of DKA and NKH (MK, PC)
- Define, describe and discuss screening and maintenance laboratory testing used in the management of diabetic patients (MK, PC)
- Define, describe and discuss pharmacologic and non-pharmacologic management strategies for the treatment of diabetes mellitus (PC, MK)
- Discuss the ADA clinical practice guidelines for the management of patients with diabetes mellitus (MK, PC, SBP)
- Describe basic management principles of hypertension and hyperlipidemia in the diabetic patient (MK, PC)

Dyslipidemia
The student shall:

- Define, describe and discuss the contribution of lipoproteins to atherogenesis and CAD, including
interpretation of elevations of total cholesterol, LDL, the ratio of total to HDL cholesterol and Lipoprotein a. (MK)

- Define, describe and discuss the pathophysiology and etiology of primary and secondary dyslipidemia (MK)
- Define, describe and discuss the role of genetics in dyslipidemia (MK)
- Demonstrate basic understanding of the current National Cholesterol Education Program (NCEP, ATPIII) guidelines for risk assessment and management of dyslipidemias. (MK, PC, PBLI, SBP)
- Discuss basic pharmacologic and non-pharmacologic treatment strategies for the management of dyslipidemias. (PC, MK)

**Heart Failure**

*The student shall:*

- Define, describe and discuss the pathophysiology and major etiologies of heart failure (MK)
- Place patients into appropriate stages of heart failure using evidence based guidelines (MK, PC, PBL)
- Differentiate systolic from diastolic dysfunction (MK)
- List common factors that contribute to the development of symptomatic exacerbations of heart failure (MK, PC)
- Define, describe and discuss the physiologic basis and scientific evidence supporting types of treatment used in the management of heart failure. (MK, PC, PBLI)
- Demonstrate basic understanding of the Joint Commission quality measures for heart failure treatment (MK, PVC, SBP)
- Interpret and discuss the utility of B-natriuretic peptide in the diagnosis and management of heart failure. (MK, PC)
- Interpret, with consultation, echocardiography (PC)

**HIV Infection**

*The student shall:*

- Describe the symptoms and signs of acute HIV seroconversion (MK)
- List AIDS defining illnesses as published by the CDC (MK, PBLI, SBP)
- Define, describe and discuss the relationship between CD4 lymphocyte count and opportunistic infection (MK)
- Define, describe and discuss the basic principles of highly active antiretroviral therapy (HAART) in the management of HIV, including drug classes, common side effects and drug-drug interactions (MK, PC)
- Define, describe and discuss the basics of post exposure prophylaxis from sexual encounters and after exposure from needle-stick injury/ (MK, PNLI, MK)
- List the vaccination recommendations for patients with HIV (MK)
- Define, describe and discuss the pathogenesis, symptoms, signs, typical clinical course, and management of HIV-related opportunistic infections including: Pneumocystis jiroveci; candidiasis, Cryptococcus neoformans, cytomegalovirus, Varicella zoster virus, Isospora belli, Mycobacterium avium complex, Mycobacterium tuberculosis, Toxoplasmosis gondii (MK)
- Define, describe and discuss common skin and oral manifestations of HIV infection/AIDS including: Molluscum contagiosum, Viral warts, herpes zoster, seborrheic dermatitis, buccal candidiasis, oral hairy leukoplakia. (MK)
• Counsel patients on safe-sex practices. (PC, ICS)
• Generate a prioritized differential diagnosis in AIDS patients presenting with the following complaints: (MK, PC)
  o Fever
  o Weight loss/cachexia
  o Lymphadenopathy
  o Cough/dyspnea/abnormal chest radiography
  o Diarrhea, odynophagia, dysphagia
  o Altered mental status
  o Headache
  o Visual abnormalities
• Interpret and discuss the limitations of HIV ELISA, Western blog and quantitative PCR) (PC, MK)
• Analyze CSF in patients with HIV and relate findings to your differential diagnosis (PC, MK)
• Interpret (with consultation) CT of chest, CT of brain, Cranial MRI (PC, MK)

Hypertension
The student shall:
• Define, describe and discuss the etiologies and prevalence of primary and secondary hypertension (MK)
• Define hypertensive emergency and urgency (MK)
• Define, describe and discuss the manifestations of target-organ disease due to hypertension (MK)
• Define normal BP for adult patients with and without comorbid diseases (MK, PBLI.)
• Define, describe and discuss prevention strategies for reducing and controlling blood pressure, including lifestyle changes and counsel patients in ways to achieve their goals in hypertensive management. (MK, PC)
• List psychosocial and environmental factors that may elevate BP (MK, PC, OPP)
• Discuss factors that may contribute to noncompliance with antihypertensive medication. (PC, SBP)
• Perform accurate manual blood pressure measurements (PC)
• Discuss the initial approach to pharmacotherapy of hypertension as provided in published Clinical guidelines (PC, MK, SBP, PBLI)
• List recommended screening examinations in patients with chronic hypertension. (MK, PBLI)
• Describe the medical management of hypertensive emergency (MK, PC)

Liver Disease
The student shall:
• Define, describe and discuss the biochemical/physiologic/mechanistic approach to hyperbilirubinemia (MK)
• Define, describe and discuss the biochemistry and common causes of unconjugated and conjugated hyperbilirubinemia(MK)
• Interpretation of serum markers of liver injury (AST, ALT, GGT, Alk Phos) and function (bilirubin) PT/INR) in the diagnostic evaluation of liver disease (MK, PC)
• Define, describe and discuss the epidemiology, signs, symptoms, typical clinical course and prevention of viral hepatitis. (MK)
• List the indications for and discuss the efficacy of hepatitis A and B vaccines (MK)
• Define, describe and discuss the epidemiology, symptoms, signs and typical course of cirrhosis.
Define, describe and discuss the pathophysiologic manifestations, symptoms, signs, and complications of alcoholic liver disease (MK)
Define, describe and discuss the symptoms and signs of portal hypertension (MK)
Define, describe and discuss the pathophysiologic manifestations, symptoms, and signs of spontaneous bacterial peritonitis. (MK)
Define, describe and discuss the basic pathophysiology, symptoms, signs, typical clinical course and precipitants of hepatic encephalopathy (MK)
Define, describe and discuss the basic pathophysiology, symptoms, signs and typical clinical course of patients with hepatorenal syndrome. (MK)
List common causes of drug-induced hepatitis. (MK)
List the indication, risks and benefits of paracentesis and liver biopsy. (MK, PC)
Interpret and discuss indications for imaging of the hepatobiliary system, including ultrasound, CT, MRI, Magnetic resonance cholangiopancreatography (MRCP) and endoscopic retrograde cholangiopancreatography (ERCP). (MK, PC)
Elicit a fluid wave on physical examination of a patient with ascites (PC)
Describe physical examination findings seen with chronic alcohol use and portal hypertension (PC, MK)
Counsel patients on the necessity to stop drinking alcohol if diagnosed with liver dysfunction (PC, ICS)

**Major Depression**
*The student shall:*
- Define, describe and discuss the epidemiology of major depression in the general population and the impact of serious illness on the prevalence of depression (MK)
- List the American Psychiatric Association’s DSM IV diagnostic criteria for major depression (MK)
- Define, describe and discuss the psychological and neurovegetative symptoms and signs of major depression. (MK)
- Define, describe and discuss the differential diagnosis of major depression. (MK, PC)
- Describe the US Preventative Services Task Force (USPSTF) depression screening recommendations (MK, PBLI, SBP)
- Assess patient’s risk of suicide/Identify risk factors for suicide attempts (MK, PC)
- Define, describe and discuss the indications and efficacy of basic therapeutic options in major depression including psychotherapy, pharmacotherapy and electroconvulsive therapy. (MK, PC)
- List the side effects and common drug-drug interactions of the major classes of antidepressants (MK, PC)

**Nosocomial Infections**
*The student shall:*
- Define, describe and discuss the epidemiology and significance of nosocomial infection in the US (MK)
- List the major routes for transmission of nosocomial infection and describe appropriate isolation procedures for each. (MK, PC)
- Define, describe and discuss the epidemiology, pathophysiology, microbiology, symptoms, signs, typical clinical course and preventative strategies for: UTI, Pneumonia, Postoperative infections, skin infections, Intravascular devise-related infections and health care associated diarrhea. (MK)
- Define, describe and discuss the epidemiology, pathophysiology, microbiology, symptoms, signs, typical clinical course and preventative strategies and empiric antibiotic therapy for the following
infections: Vancomycin resistant enterococci, C. difficile, Methicillin-resistant S. areus and multidrug-resistant Gram-negative bacteremia. (MK, PC)

- List the CDC guidelines for hand hygiene (MK)
- Define, describe and discuss the indications, side-effects, and efficacy of post-exposure prophylaxis for hepatitis B and HIV.
- Define, describe and discuss the assessment of a hospitalized patient who develops a fever 48 hours or more after admission (MK, PC)
- Obtain blood cultures (PC)
- Place and interpret a PPD (PC)

**Obesity**

*The student shall:*

- Define, describe and discuss the etiology of obesity including patient and environmental/social factors that impact the disorder. (MK, OPP)
- Describe the definition and classification of overweight and obese using BMI (MK)
- Calculate the patient’s caloric requirements and the caloric deficit required to achieve a 5-10% weight reduction in 6-12 months. (MK, PC)
- Develop an exercise program and assist patients in setting goals for weight loss (MK, PC, ICS)
- Define, describe and discuss treatment options for obesity, including non-pharmacologic, pharmacologic and surgical.
- Define, describe and discuss the role of endocrinologists, dieticians and obesity management specialists in caring for the obese patient (MK, PC)

**Pneumonia**

*The student shall:*

- Define, describe and discuss the epidemiology, pathophysiology, symptoms, signs and typical clinical course of community–acquired, nosocomial, and aspiration pneumonia as well as pneumonia in the immunocompromised host. (MK)
- List the most common pathogens that cause pneumonia (MK)
- Identify pneumonia on chest radiographs. (MK, PC)
- Define, describe and discuss appropriate antimicrobial management of varying types of pneumonia, including the concept of microbial resistance and it’s impact on antibiotic selection. (MK, PC, SBP)
- Define, describe and discuss the indications for and efficacy of pneumonia and influenza vaccination. (MK, PC)
- Differentiate patients presenting with COPD/asthma exacerbation, upper respiratory infections, congestive heart failure, and pulmonary embolism. (MK, PC)

**Rheumatologic problems**

*The student shall:*

- Define, describe and discuss a systematic approach to patients with joint pain based on an understanding of pathophysiology of potential causes.
- Define, describe and discuss the distinguishing features of intra-articular vs. periarticular complaints (joint pain vs. tendonitis, bursitis, etc.)
- Define, describe and discuss treatment options and dietary restrictions recommended in the treatment of gout. (MK, PC)
- Define, describe and discuss the pathophysiology of autoimmunity and autoimmune diseases. (MK)
- The common signs and symptoms of and the diagnostic approach to: Rheumatoid arthritis, spondyloarthropathies, systemic lupus erythematosus, systemic sclerosis, Raynaud’s syndrome, Sjögren’s syndrome, temporal arteritis, polymyositis and dermatomyositis and fibromyalgia. (MK, PC)
- Describe indications for and interpretation of the following laboratory tests: synovial fluid analysis, ESR, rheumatoid factor, antinuclear antibody test and anti-DNA test. (MK, PC)

**Smoking Cessation**
The student shall:
- Define, describe and discuss the pharmacologic effects of nicotine. (MK)
- Define, describe and discuss nicotine withdrawal symptoms. (MK)
- Define, describe and discuss the stages of change needed to initiate life-style change, including pre-contemplation, contemplation, preparation, action and maintenance. (MK)
- Define, describe and discuss common medical disorders associated with chronic smoking and the effects of quitting on future risk. (MK)
- Define, describe and discuss pharmacotherapeutic tools for smoking cessation, including nicotine replacement (MK)
- Define, describe and discuss the Centers for Medicare and Medicaid Services (CMS and the Joint Commission (JCAHO) quality measures for smoking cessation advice in hospitalized patients. (MK, SBP)
- Design interventions for individual patients that match the stage of behavior change demonstrated by that patient. (PC)

**Substance Abuse**
The student shall:
- Define, describe and discuss the presenting signs and symptoms of abuse of and the signs and symptoms of withdrawal from the following substances : alcohol, opioids, cocaine, amphetamines, hallucinogens, barbiturates, marijuana, anabolic steroids, benzodiazepines(MK)
- Define, describe and discuss the diagnostic criteria for substance abuse, dependency and addiction (MK)
- Define, describe and discuss the questions in the CAGE questionnaire and apply it to patients when assessing for substance abuse. (MK, PC)
- Demonstrate understanding of the principles of acute management of drug/alcohol intoxication and withdrawal. (MK, PC)

**Venous thromboembolism**
The student shall:
- Define, describe and discuss the risk factors for developing DVT (MK)
- Define, describe and discuss the presenting signs and symptoms of DVT and pulmonary embolism (PE). (MK)
- Define, describe and discuss the treatment modalities for DVT and PE. (MK, PC)
- Define, describe and discuss methods for DVT prophylaxis -including indications and efficacy.(MK, PC)
- Discuss indications for and interpretation of D-Dimer in suspected DVT/PE (MK, PC)
- Discuss and indications for duplex venous ultrasonography, ventilation perfusion scan, CT angiography and interpret same with consultation. (MK, PC)
TEXTBOOKS (Required):

Other Recommended Resources:
- DiGiovanna EL: An Osteopathic Approach to Diagnosis and Treatment. 3rd ed. Lippincott Williams & Wilkins (2005)

ONLINE REFERENCES:
LearnersTV videos: www.learnersrv.com/Free-Medical-Video-lectures.htm
ECG Learning Center: www.ecg.utah.edu/
NBOME Blueprint for the COMAT on Internal Medicine: www.nbome.org/docs/COMAT-Internal_Medicine.pdf

COURSE REQUIREMENTS:
Attendance, participation, grading components, etc. are all listed in the introductory portion of this manual and apply to all OMS 3 core rotations.

Logs: All logs are to be completed on-line using the E-value system. They must then be printed, signed by your preceptor and returned to your rotation counselor by fax, email, mail or in person within 7 days of completion of your rotation.

OP+P Assignment:
The articles assigned to this rotation are:
1. Preventative Osteopathic Manipulative Treatment and the Elderly Nursing Home Resident: A Pilot Study
2. Therapy of the Mandibular Accessory Ligaments for the Management of TemporomandibularJoint Disorders

They are available on D2L. In order to obtain credit for an article the student must read the article and achieve a 70% on the quiz. The student may reread the article and take the test a second time if they do not successfully pass on the first attempt. Only two attempts will be allowed for each quiz.

End of Rotation Examination:
The end of rotation examination will be released on D2L on the last weekday of the calendar month at 4pm. The test will close at 6pm. Contact the clinical rotations office at 601-318-6094 in the event of technical difficulties when taking the examination.
**Reading Assignment:**

See chart below for the full details of required/suggested readings and activities. In order to fully understand required elements of internal medicine and provide additional detail to answer questions that arise while on rotation, additional reading may be necessary. It is suggested that you pace yourself accordingly. Your preceptor may also assign readings/activities in addition to these listed.

### Reading Logs for Internal Medicine I

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<th>Rotation day</th>
<th>Topic</th>
<th>Blueprints</th>
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WILLIAM CAREY UNIVERSITY  
COLLEGE OF OSTEOPATHIC MEDICINE  
INTERNAL MEDICINE II CLINICAL ROTATION SYLLABUS (OMS 7332)  
2014-2015  
(8 credit hrs)  

COURSE DESCRIPTION  
Internal medicine II is a continuation of your Internal Medicine I rotation meant to allow for continued growth in knowledge and skill required to care for adult patients in both the inpatient and outpatient setting. This rotation may be performed on a general medicine service or on a specialty service, according to the schedule determined by the clinical rotations office. Requests for a specific specialty may be considered. Such requests must be made through the protocol discussed earlier in the manual that details the method to request for core rotation changes. After all appropriate documentation has been received, the request will be considered on a case by case basis. 

During this rotation the student will continue to develop skills in his/her performance of a detailed medical history and physical examination; learn the reasons for the selection of common diagnostic tests; become involved with all parameters of a patient’s evaluation needed to reach a diagnosis; learn the method of grading risks and benefits of treatment; be exposed to the considerations employed in the selection of the therapeutic agents and become thoroughly familiar with Internal Medicine as a specialty. The student should have the opportunity to provide assistance on certain procedures and be expected to follow the patient’s care from admission to discharge. You are expected to become familiar with hospital’s record requirements and should gain experience in both ambulatory and in-hospital diagnosis, treatment and follow-up. 

Since, this is an extension of the internal medicine I rotation, it is expected that the student has grasped the basics of the earlier medicine experience and is now adequately prepared to devote time to improving these skills and becoming more involved with the diagnosis and treatment of conditions commonly seen by the internist. An increased level of patient care and medical/osteopathic management is expected of students on this rotation. There will also be an increased focus on preventative medicine on this rotation. 

The students will have an opportunity to accompany their supervising physician while making hospital rounds, perform histories and physicals, participate in patient care, utilize their skills in osteopathic diagnosis, principles, practice and treatment, attend hospital lectures, and be generally introduced to hospital routine. Students in Medicine are expected to attend morning report, internal medicine conferences, and medical grand rounds. Presentation of cases by students should be encouraged and their performance should be observed and critiqued.
Throughout the rotation the osteopathic philosophy will be emphasized, namely that: (1) the body is a unit, the person is a unit of body, mind, and spirit; (2) the body is capable of self-regulation, self-healing, and health maintenance; (3) structure and function are reciprocally related; and (4) rational treatment is based upon an understanding of the basic principles of body unity, self-regulation, and the interrelationship of structure and function.

Osteopathic physicians strive to treat their patients as part of the medical team, they endeavor to know their patient as a whole, and they make every effort to teach their patients how to achieve optimal health.

1. **Osteopathic Principles and Practices**

   All preceptors are expected to encourage and verify application of osteopathic principles and osteopathic preceptors are expected to encourage and evaluate appropriate use of osteopathic manipulative treatment (OMT).

   The student will:
   - Integrate Osteopathic Principles and Practices into all patient care activities.
     - Consider the patient as a whole, including mind, body and spirit during patient encounters and when formulating treatment plans
     - Include the patients family/support network in decision making when appropriate
   - Perform osteopathic structural examinations and osteopathic manipulative therapy (OMT) in the evaluation and management of patients when appropriate
   - Demonstrate competence in the application of OMT appropriate to internal medicine.
   - Learn to adapt osteopathic diagnostic skills and treatments in hospitalized patients.
   - Adapt osteopathic treatment modalities to adequately and safely treat elderly patients.

2. **Medical Knowledge**

   Preceptors are expected to evaluate medical knowledge, understanding of disease process, and the student’s ability to apply cognitive skills in differential diagnosis.

   The student will:
   - Apply knowledge of physiology, pathology, anatomy, microbiology, biochemistry and other basic sciences to the diagnosis and treatment of their patients.

3. **Patient Care (PC)**

   Preceptors are expected to evaluate the student’s ability to consistently demonstrate competence in patient care, including the ability to competently take a history, perform a physical examination, assist with medical procedures, and provide appropriate follow-up care.

   The student will:
   - Obtain an accurate and focused history in patients of all ages
   - Perform an accurate, organized and appropriately thorough physical examination on patients
   - Generate an accurate differential diagnosis
   - Propose appropriate diagnostic testing to narrow their differential diagnosis
   - Appropriately interpret ECG, Laboratory and radiographic studies
   - Propose an evidence-based management plan that includes pharmacologic and non-pharmacologic therapy for patients with acute presentations
• Perform or assist in the performance of the following procedures under supervision. (It is understood that the opportunity to perform all of these procedures may not occur on all rotations. It is intended that the student perform all of these procedures at some point during their internal medicine 1 and 2 rotations).
  o Insertion of Foley catheter
  o Insertion NG tube
  o Insertion of peripheral IV
  o Venipuncture
  o Arterial blood gas
  o Interpretation of chest x-ray
  o Interpretation of EKG
  o Interpretation of pulmonary function test
  o Interpretation of urinalysis
  o Interpretation of CBC
  o Interpretation of electrolytes
  o Interpretation of renal function
  o Interpretation of liver panel
  o Interpretation thyroid profile
  o Interpretation of PSA
  o Stool test for occult blood
  o Review of slides with pathologist

• Observe or assist in the performance of the following procedures:
  o Cardiac stress testing
  o Echocardiography
  o Colonoscopy
  o Endoscopy
  o Bronchoscopy
  o Arthrocentesis
  o Central line placement
  o PICC line placement
  o Paracentesis
  o Thoracentesis
  o Endotracheal intubation
  o Management of patient on mechanical ventilator

4. **Interpersonal and Communication Skills (ICS)**
Preceptors are expected to evaluate student competence in verbal and written communication as well as the student’s skills in oral presentation their history and physical examination findings.

**The student will:**
• Demonstrate ability to effectively communicate with patients of all ages.
• Demonstrate ability to identify and communicate with caregivers.
• Use medical terminology as appropriate in communicating with other health care professionals
• Avoid the use of medical terminology when communicating with patients, unless they provide explanation of these terms
• Document details of a patient encounter in a clear, concise and organized fashion
• Present patients to the preceptor and other health care providers in a complete, organized and concise fashion.
5. **Professionalism (P)**
Preceptors are expected to evaluate professionalism, including respect, compassion, cultural sensitivity, accountability, attitude and responsiveness to feedback.

*The student will:*
- Display a nonjudgmental attitude
- Demonstrate empathy when dealing with patients as well as with members of the health care team
- Maintain patient confidentiality
- Be punctual
- Adhere to the WCUCOM dress code
- Complete assigned tasks in a timely fashion
- Accept feedback without taking personal offense
- Use feedback as a means toward personal and professional growth

6. **Practice Based Learning and Improvement (PBLI)**
Preceptors are expected to evaluate the student’s practice based learning and improvement skills—including the student’s ability to integrate evidence based medicine into patient care.

*The student will:*
- Access online resources and review articles such as Up-To-Date or the Cochrane Database to obtain information regarding the care of their patients
- Perform appropriate literature searches to obtain articles that pertain to their management of patients in the clinical setting
- Apply evidence-based medicine when diagnosing patients and/or developing their management plan
- Assess the quality of evidence they obtain from various resources.

7. **Systems-Based Practice (SBP)**
Preceptors are expected to evaluate the student’s ability to understand his/her role as a member of the health care team, the student’s understanding of local community medical resources, and the student’s understanding of providing cost effective medicine.

*The student will:*
- Be respectful toward all members of the healthcare team
- Provide effective and timely communication to other members of the team
- Identify barriers to optimal patient care
- Identify community resources available to enhance patient care

The following competency based learning objectives are organized by medical problem/presentation and are recommended as core content by the Clerkship Directors of Internal Medicine and the Society for General Internal Medicine. The student is encouraged to focus on those objectives not studied in depth during their Internal Medicine II rotation.
The Healthy Patient: Health Promotion, Disease Prevention and Screening:
The student shall:

• Define, describe and discuss the epidemiology and definition of hypertension, its contribution to cardiovascular risk and recommendations for screening (MK)
• Define, describe and discuss the epidemiology of hyperlipidemia, its contribution to cardiovascular risk, impact of treatment on risk, current recommendations for screening (MK)
• Define, describe and discuss the epidemiology of:
  o Breast cancer, including efficacy of screening modalities and current screening recommendations (MK)
  o Common skin cancers, including warning signs of melanoma (MK)
  o Cervical cancer, including the utility of PAP smear and current screening recommendations (MK)
  o Colorectal cancer, including the impact of early treatment and current screening recommendations (MK)
  o Prostate cancer, including impact of early treatment and current screening recommendations (MK)
• Discuss the risk, benefits and recommendations for adult immunization (MK)
• Perform a functional status assessment in geriatric patients (PC)
• Counsel patients regarding: safe sex practices, healthy diet, smoking cessation, alcohol abstinence or limitation partnering with the patient to facilitate change (PC, ICS)

Abdominal Pain:
The student shall:

• Differentiate visceral, parietal, and referred pain (MK)
• Describe and discuss the relative likelihood of common causes of abdominal pain based upon pain pattern and location of pain within the abdomen (MK)
• Describe signs and symptoms indicative of an acute/surgical abdomen (MK)
• Define indications for and interpret (with consultation): (MK, PC)
  o Abdominal ultrasound
  o Abdominal CT scan
  o Paracentesis fluid studies
  o Upper gastrointestinal endoscopy
  o Colonoscopy
  o Radionuclide studies of the hepatobiliary system
• Determine which patients should be referred to a gastroenterologist and which to a surgeon (PC, SBP)

Altered Mental Status
The student shall:

• Define, describe and discuss the differentiation of delirium, dementia and depression. (MK)
• The pathophysiology, symptoms and signs of the most common and serious causes of altered mental status including:
  o Metabolic causes (Hyper/hyponatremia, hyper/hypoglycemia, hypercalcemia, hyper/hypothyroidism, hypoxia/hypercapnea, hepatic encephalopathy, uremic encephalopathy, drug/alcohol intoxication or withdrawal) (MK)
  o Structural lesions or in the CNS (MK)
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Define, describe and discuss symptoms and signs of chest pain due to GI disorders such as esophageal disease, biliary disease, peptic ulcer disease, pancreatitis (MK)

Define describe and discuss symptoms and signs of chest pain due to pulmonary disorders such as pneumonia, pneumothorax, pleurisy, pulmonary embolism, pulmonary hypertension (MK)

Define describe and discuss symptoms of chest pain due to psychogenic causes such as anxiety, hyperventilation and somatoform disorders (MK)

List risk factors for development of coronary artery disease (MK)

Describe the timing, pitch, location and radiation pattern of ausculted hear murmurs (PC, ICS)

Interpret cardiac enzymes, d-dimer, 12 lead ECG and discuss the effect of pretest probability on interpretation. (MK, PC)

Interpret(with consultation) and define indications for: echocardiogram, exercise stress test, stress thallium, dobutamine stress echocardiography, coronary angiography, CT for coronary calcification, CT A for pulmonary embolism, V/Q scan. (PC, MK)

Perform a 12 lead ECG on patients (PC)

**Cough/Dyspnea**

The student shall:

- Define, differentiate and describe common causes of acute and chronic cough
- Define, differentiate and describe major organ systems/pathologic states causing dyspnea and their pathophysiology (including: cardiac, pulmonary, anemia, acid-base disturbances, other metabolic derangements, neuromuscular weakness, CNS derangements) (MK)
- Identify abnormal lung sounds such as wheezes, rhonchi and rales (PC)
- Interpret chest x-ray, pulse oximetry, ABG, PFTs, pleural fluid cell count and chemistries, PFTs, sputum gram stain, sputum culture and sensitivities (PC, MK)
- Interpret (With consultation) CT of the chest, sputum cytology, upper endoscopy, barium swallow (PC)
- Discuss the utility of supplemental oxygen therapy and the dangers of overly aggressive oxygen supplementation in some pathophysiologic states (MK)

**Dysuria**

The student shall:

- Define describe and discuss symptoms and signs of pyelonephritis and how to distinguish an upper from a lower UTI (MK)
- Identify common bacteria that cause UTI (MK)
- Discuss aspects of pathogenesis that affect UTI, including gender, sexual activity, diabetes, anatomic anomalies, instrumentation and indwelling catheters. (MK)
- Interpret urinalysis and urine culture (PC)

**Fever**

The student shall:

- Define, describe and discuss the physiology of the acute febrile response (MK)
- Define, describe and discuss the risk factors and co-morbidities that are important in determining the host response to infection (MK)
- Define, describe and discuss etiology of fever in patients with neutropenia, HIV, IV drug abuse, recent travel/immigration (MK)
Perform a lumbar puncture under supervision (PC)
Interpret the results of ESR, CSF fluid analysis, Stool cultures (PC)
Develop an appropriate plan for empirical treatment with antibiotics while awaiting culture results (MK, PC)

**Fluid, Electrolyte and Acid-base disorders**

*The student shall:*

- Should be able to define, describe and discuss the pathophysiology of: hypo/hypovolemia, hypo/hyponatremia, Hypo/hyperkalemia, hypo/hypercalcemia, simple and mixed acid-base disorders, hypo/hyperphosphatemia, Hypo/hypermagnesemia, respiratory acidosis/alkalosis, metabolic acidosis/alkalosis (MK)
- Define, describe and discuss the differential diagnosis of hypo/hyponatremia in the setting of euvolemia, volume depletion and hypervolemia. (MK)
- Distinguish hyponatremia from pseudohyponatremia (MK, PC)
- Calculate anion gap and explain it’s relevance to determining causes of metabolic acidosis. (MK, PC)
- Define, describe and discuss the types of fluid preparation to use in the treatment of fluid and electrolyte disorders (MK)
- Interpret anion gap, urine and serum osmolality, Urinary sodium and fractional excretion of sodium (PC)
- Describe ECG changes seen with common electrolyte abnormalities (MK)
- Write orders to appropriately correct fluid and electrolyte deficits (MK, PC)
- Calculate the water deficit needed to treat hyponatremia (MK, PC)
- List and describe the mechanism of action of commonly used agents in the treatment of hyperkalemia. (MK, PC)

**GI Bleeding**

*The student shall:*

- List the common causes of upper an lower GI bleeding (MK)
- Distinguish signs and symptoms of lower vs. upper GI bleeding (MK, PC)
- Discuss the principles of stabilization and treatment of massive GI bleeding. (PC, MK)
- Define, describe and discuss the role of contributing factors such as H. pylori, NSAIDs, alcohol, tobacco and liver disease as they apply to GI bleeding.
- Describe the stages of hemorrhagic shock and the physical findings of each stage (MK, PC)

**Rash**

*The student shall:*

- Describe rashes and skin lesions using standard nomenclature (MK, ICS)
- Describe the ABCDE findings consistent with potentially malignant skin lesions (MK, PC)
- Define, describe and discuss the diagnosis, pathophysiology and typical presentations of common eczematous diseases. (MK)
- Define, describe and discuss the diagnosis, pathophysiology and typical presentations of common causes of maculopapular eruptions (MK)
• Define, describe and discuss the diagnosis, pathophysiology and typical presentations of common causes of papulosquamous dermatoses (MK)
• Define, describe and discuss the diagnosis, pathophysiology and typical presentations of common cutaneous infections (MK)
• Define, describe and discuss the diagnosis, pathophysiology and typical presentations and the transmission prevention strategies for community acquired MRSA. (MK, PC)
• Define, describe and discuss the diagnosis, pathophysiology and typical presentations of common pustular diseases (MK)
• Define, describe and discuss the diagnosis, pathophysiology and typical presentations of common cutaneous ulcers (MK)
• Define, describe and discuss the significance of purpura and petechiae (MK)
• Define, describe and discuss the diagnosis, pathophysiology and typical presentations of common drug eruptions (MK)
• Define, describe and discuss the diagnosis, pathophysiology and typical presentations of cutaneous manifestations of sexually transmitted disease (MK)
• Perform skin scraping and KOH testing in appropriate patients (PC)

**Acute MI**
*The student shall:*
• Define, describe and discuss the primary and secondary prevention of ischemic heart disease through the reduction of cardiovascular risk factors (MK)
• Define, describe and discuss pathogenesis, signs and symptoms of acute coronary syndromes including unstable angina, NSTEMI, STEMI (MK)
• Define, describe and discuss ECG findings and macromolecular markers and their role in diagnosis of AMI (MK, PC)
• Therapeutic options for acute MI and how they differ between STEMI and Non-STEMI (MK, PC)
• Define, describe and discuss the pathogenesis, signs and symptoms of the complications of acute MI (MK)
• Define, describe and discuss indications for cardiac catheterization (MK, PC)
• Define, describe and discuss indications for CABG. (PC, MK)
• Define, describe and discuss the Joint Commission guidelines for quality measures in treatment of acute MI. (MK, SBP)
• Interpret cardiac enzymes, ECG, chest radiograph (PC, MK))
• Interpret (With consultation) echocardiogram, cardiac stress testing, coronary angiography. (MK, PC)

**Acute Renal Failure(ARF) and Chronic Renal Disease**
*The student shall:*
• Define, describe and discuss the distinction between prerenal, renal and postrenal causes of acute renal failure (MK)
• Define, describe and discuss the pathophysiology and major etiologies of prerenal ARF (MK)
• Define, describe and discuss the pathophysiology and major etiologies of intrinsic or “renal” ARF. (MK)
• Define, describe and discuss the pathophysiology and major etiologies of postrenal ARF (MK)
• Define, describe and discuss the pathophysiology and clinical findings of uremia (MK)
• Define, describe and discuss the most common etiologies of chronic kidney disease(CKD) (MK)
• Interpret urinalysis and 24 hour urine and discuss the significance of proteinuria in the setting of CKD. (MK, PC)
• Define, describe and discuss the use of ACE inhibitors and ARBs in the management of CKD (MK, PC)
• Define, describe and discuss the value of glycemic and hypertensive control in patients with CKD (MK, PC)
• Define, describe and discuss the principles of renal replacement therapy (dialysis) as well as common complications (MK, PC)
• Interpret urinalysis, serum electrolytes, and calculate an anion gap (MK, PC)
• Calculate the fractional excretion of sodium and appreciate how it may be used to differentiate pre-renal and intrinsic causes of ARF (MK, PC)
• Calculate the creatinine clearance (MK, PC)
• Interpret (with consultation) imaging studies of the kidney, such as CT or ultrasound (PC)

**Common Cancers**
*The student shall:*
• Define, describe and discuss primary prevention measures for common cancers (MK)
• Define, describe and discuss the clinical presentation, clinical course, complications and causes of death for the most common cancers (skin, colorectal, lung, breast, cervical and prostate)
• List indications for skin biopsy in a patient with a suspicious skin lesion (MK)
• List indications for colonoscopy in patients at risk for colon cancer (MK)
• List indications for breast biopsy in patients with a breast mass or abnormal screening mammogram (MK)
• List indications for lymph node biopsy in patients with suspicious lymphadenopathy (MK)
• Define, describe and discuss genetic considerations of selected cancers (hereditary nonpolyposis colon cancer, BRCA1/R=BRCA2, HER 2, Philadelphia chromosome/BRC-ABK) (MK)
• Define, describe and discuss the indications and role of palliative and hospice care in patients with end-stage cancer. (MK, PC)
• Interpret (with consultation) the results of skin, breast, colon, lung, prostate and lymph node biopsy, (MK,PC)

**COPD/Obstructive Airway Disease**
*The student shall:*
• Define, describe and discuss risk factors, symptoms, signs and typical clinical course of the common forms of COPD. (MK)
• Define, describe and discuss the common causes of acute exacerbations of COPD(MK)
• Define, describe and discuss the pathophysiology and major etiologies, evaluation and management of hypoxia and hypercapnea. (MK)
• Define, describe and discuss the role of genetics and alpha-1 antitrypsin deficiency in some patients with emphysema.(MK)
• Define, describe and discuss the epidemiology, risk factors, signs and symptoms and typical
clinical course of asthma (MK)

- Identify common precipitants of bronchospasm in asthmatics (MK)
- Define, describe and discuss the therapies for COPD and asthma including bronchodilators, inhaled and systemic corticosteroids, antimicrobial agents, supplemental O2.
- List indications for influenza and pneumococcal vaccination in patients with chronic lung disease (MK)

**Diabetes Mellitus**

_The student shall:_

- Define, describe and discuss the diagnostic criteria for impaired fasting glucose and impaired glucose tolerance (MK)
- Define, describe and discuss the diagnostic criteria for type I and type II diabetes mellitus (MK)
- Define, describe and discuss the basic principles of the role of genetics in diabetes mellitus (MK)
- Describe the presenting symptoms in diabetic ketoacidosis (DKA) and nonketotic hyperglycemia (NKH) and discuss the pathophysiology and expected laboratory abnormalities seen in both disease processes. (MK, PC)
- Discuss the diagnosis and management of DKA and NKH. (MK, PC)
- List common precipitants of DKA and NKH (MK, PC)
- Define, describe and discuss screening and maintenance laboratory testing used in the management of diabetic patients (MK, PC)
- Define, describe and discuss pharmacologic and non-pharmacologic management strategies for the treatment of diabetes mellitus (PC, MK)
- Discuss the ADA clinical practice guidelines for the management of patients with diabetes mellitus (MK, PC, SBP)
- Describe basic management principles of hypertension and hyperlipidemia in the diabetic patient (MK, PC)

**Dyslipidemia**

_The student shall:_

- Define, describe and discuss the contribution of lipoproteins to atherogenesis and CAD, including interpretation of elevations of total cholesterol, LDL, the ratio of total to HDL cholesterol and Lipoprotein a. (MK)
- Define, describe and discuss the pathophysiology and etiology of primary and secondary dyslipidemia (MK)
- Define, describe and discuss the role of genetics in dyslipidemia (MK)
- Demonstrate basic understanding of the current National Cholesterol Education Program (NCEP, ATPIII) guidelines for risk assessment and management of dyslipemias. (MK, PC, PBLI, SBP)
- Discuss basic pharmacologic and non-pharmacologic treatment strategies for the management of dyslipemias. (PC, MK)
Heart Failure
The student shall:

• Define, describe and discuss the pathophysiology and major etiologies of heart failure (MK)
• Place patients into appropriate stages of heart failure using evidence based guidelines (MK, PC, PBL)
• Differentiate systolic from diastolic dysfunction (MK)
• List common factors that contribute to the development of symptomatic exacerbations of heart failure (MK, P C)
• Define, describe and discuss the physiologic basis and scientific evidence supporting types of treatment used in the management of heart failure. (MK, PC, PBLI)
• Demonstrate basic understanding of the Joint Commission quality measures for heart failure treatment (MK, PVC, SBP)
• Interpret and discuss the utility of B-natriuretic peptide in the diagnosis and management of heart failure. (MK, PC)
• Interpret, with consultation, echocardiography (PC)

HIV Infection
The student shall:

• Describe the symptoms and signs of acute HIV seroconversion (MK)
• List AIDS defining illnesses as published by the CDC (MK, PBLI, SBP)
• Define, describe and discuss the relationship between CD4 lymphocyte count and opportunistic infection (MK,)
• Define, describe and discuss the basic principles of highly active antiretroviral therapy (HAART) in the management of HIV., including drug classes, common side effects and drug-drug interactions (MK, PC)
• Define, describe and discuss the basics of post exposure prophylaxis from sexual encounters and after exposure from needle-stick injury/ (MK, PNLI, MK)
• List the vaccination recommendations for patients with HIV (MK,)
• Define, describe and discuss the pathogenesis, symptoms, signs, typical clinical course, and management of HIV-related opportunistic infections including: Pneumocystis jiroveci; candidiasis, Cryptococcus neoformans, cytomegalovirus, Varicella zoster virus, Isospora belli, Micobacterium avium complex, Mycobacterium tuberculosis, Toxoplasmosis gondii (MK)
• Define, describe and discuss common skin and oral manifestations of HIV infection/AIDS including: Mullocsum contagiosum, Viral warts, herpes zoster, seborrheic dermatitis, buccal candidiasis, oral hairy leukoplakia. (MK)
• Counsel patients on safe-sex practices. (PC, ICS)
• Generate a prioritized differential diagnosis in AIDS patients presenting with the following complaints: (MK, PC)
  o Fever
  o Weight loss/cachexia
  o Lymphadenopathy
  o Cough/dyspnea/abnormal chest radiography
  o Diarrhea, odynophagia, dysphagia
  o Altered mental status
  o Headache
  o Visual abnormalities
• Interpret and discuss the limitations of HIV ELISA, Western blot and quantitative PCR (PC, MK)
• Analyze CSF in patients with HIV and relate findings to your differential diagnosis (PC, MK)
• Interpret (with consultation) CT of chest, CT of brain, Cranial MRI (PC, MK)

**Hypertension**  
*The student shall:*

• Define, describe and discuss the etiologies and prevalence of primary and secondary hypertension (MK)
• Define hypertensive emergency and urgency (MK)
• Define, describe and discuss the manifestations of target-organ disease due to hypertension (MK)
• Define normal BP for adult patients with and without comorbid diseases (MK, PBLI.)
• Define, describe and discuss prevention strategies for reducing and controlling blood pressure, including lifestyle changes and counsel patients in ways to achieve their goals in hypertensive management.(MK, PC)
• List psychosocial and environmental factors that may elevate BP (MK, PC, OPP)
• Discuss factors that may contribute to noncompliance with antihypertensive medication. (PC, SBP)
• Perform accurate manual blood pressure measurements (PC)
• Discuss the initial approach to pharmacotherapy of hypertension as provided in published Clinical guidelines (PC, MK, SBP, PBLI)
• List recommended screening examinations in patients with chronic hypertension. (MK, PBLI)
• Describe the medical management of hypertensive emergency (MK, PC)

**Liver Disease**  
*The student shall:*

• Define, describe and discuss the biochemical/physiologic/mechanistic approach to hyperbilirubinemia (MK)
• Define, describe and discuss the biochemistry and common causes of unconjugated and conjugated hyperbilirubinemia(MK)
• Interpretation of serum markers of liver injury (AST, ALT, GGT, Alk Phos) and function (bilirubin) PT/INR in the diagnostic evaluation of liver disease (MK, PC)
• Define, describe and discuss the epidemiology, signs, symptoms, typical clinical course and prevention of viral hepatitis. (MK)
• List the indications for and discuss the efficacy of hepatitis A and B vaccines (MK)
• Define, describe and discuss the epidemiology, symptoms, signs and typical course of cirrhosis. (MK)
• Define, describe and discuss the pathophysiologic manifestations, symptoms, signs, and complications of alcoholic liver disease(MK)
• Define, describe and discuss the symptoms and signs of portal hypertension (MK)
• Define, describe and discuss the pathophysiologic manifestations, symptoms, and signs of spontaneous bacterial peritonitis. (MK)
• Define, describe and discuss the basic pathophysiology, symptoms, signs, typical clinical course and precipitants of hepatic encephalopathy (MK)
• Define, describe and discuss the basic pathophysiology, symptoms, signs and typical clinical course of patients with hepatorenal syndrome. (MK)
• List common causes of drug-induced hepatits. (MK)
• List the indication, risks and benefits of paracentesis and liver biopsy. (MK, PC)
• Interpret and discuss indications for imaging of the hepatobiliary system, including ultrasound, CT, MRI, Magnetic resonance cholangiopancreatography (MRCP) and endoscopic retrograde cholangiopancreatography (ERCP). (MK, PC)
• Elicit a fluid wave on physical examination of a patient with ascites (PC)
• Describe physical examination findings seen with chronic alcohol use and portal hypertension (PC, MK)
• Counsel patients on the necessity to stop drinking alcohol if diagnosed with liver dysfunction (PC, ICS)

Major Depression
The student shall:

• Define, describe and discuss the epidemiology of major depression in the general population and the impact of serious illness on the prevalence of depression (MK)
• List the American Psychiatric Association’s DSM IV diagnostic criteria for major depression (MK)
• Define, describe and discuss the psychological and neurovegetative symptoms and signs of major depression. (MK)
• Define, describe and discuss the differential diagnosis of major depression. (MK, PC)
• Describe the US Preventative Services Task Force (USPSTF) depression screening recommendations (MK, PBLI, SBP)
• Assess patient’s risk of suicide/Identify risk factors for suicide attempts (MK, PC)
• Define, describe and discuss the indications and efficacy of basic therapeutic options in major depression including psychotherapy, pharmacotherapy and electroconvulsive therapy. (MK, PC)
• List the side effects and common drug-drug interactions of the major classes of antidepressants (MK, PC)

Nosocomial Infections
The student shall:

• Define, describe and discuss the epidemiology and significance of nosocomial infection in the US (MK)
• List the major routes for transmission of nosocomial infection and describe appropriate isolation procedures for each. (MK, PC)
• Define, describe and discuss the epidemiology, pathophysiology, microbiology, symptoms, signs, typical clinical course and preventative strategies for: UTI, Pneumonia, Postoperative infections, skin infections, Intravascular devise-related infections and health care associated diarrhea. (MK)
• Define, describe and discuss the epidemiology, pathophysiology, microbiology, symptoms, signs, typical clinical course and preventative strategies and empiric antibiotic therapy for the following infections: Vancomycin resistant enterococci, C. difficile, Methicillin-resistant S. areus and multidrug-resistant Gram-negative bacteremia. (MK, PC)
• List the CDC guidelines for hand hygiene (MK)
• Define, describe and discuss the indications, side-effects, and efficacy of post-exposure prophylaxis for hepatitis B and HIV.
• Define, describe and discuss the assessment of a hospitalized patient who develops a fever 48 hours or more after admission (MK, PC)
• Obtain blood cultures (PC)
• Place and interpret a PPD (PC)
**Obesity**

*The student shall:*

- Define, describe and discuss the etiology of obesity including patient and environmental/social factors that impact the disorder. (MK, OPP)
- Describe the definition and classification of overweight and obese using BMI (MK)
- Calculate the patient's caloric requirements and the caloric deficit required to achieve a 5-10% weight reduction in 6-12 months. (MK, PC)
- Develop an exercise program and assist patients in setting goals for weight loss (MK, PC, ICS)
- Define, describe and discuss treatment options for obesity, including non-pharmacologic, pharmacologic and surgical.
- Define, describe and discuss the role of endocrinologists, dieticians and obesity management specialists in caring for the obese patient (MK, PC)

**Pneumonia**

*The student shall:*

- Define, describe and discuss the epidemiology, pathophysiology, symptoms, signs and typical clinical course of community –acquired, nosocomial, and aspiration pneumonia as well as pneumonia in the immunocompromised host. (MK)
- List the most common pathogens that cause pneumonia (MK)
- Identify pneumonia on chest radiographs. (MK, PC)
- Define, describe and discuss appropriate antimicrobial management of varying types of pneumonia, including the concept of microbial resistance and its impact on antibiotic selection. (MK, PC, SBP)
- Define, describe and discuss the indications for and efficacy of pneumonia and influenza vaccination. (MK, PC)
- Differentiate patients presenting with COPD/asthma exacerbation, upper respiratory infections, congestive heart failure, and pulmonary embolism. (MK, PC)

**Rheumatologic problems**

*The student shall:*

- Define, describe and discuss a systematic approach to patients with joint pain based on an understanding of pathophysiology of potential causes.
- Define, describe and discuss the distinguishing features of intra-articular vs. periarticular complaints (joint pain vs. tendonitis, bursitis, etc.)
- Define, describe and discuss treatment options and dietary restrictions recommended in the treatment of gout. (MK, PC)
- Define, describe and discuss the pathophysiology of autoimmune and autoimmune diseases. (MK)
- The common signs and symptoms of and the diagnostic approach to: Rheumatoid arthritis, spondyloarthropathies, systemic lupus erythematosis, systemic sclerosis, Raynaud’s syndrome, Sjögren’s syndrome, temporal arteritis, polymyositis and dermatomyositis and fibromyalgia. (MK, PC)
- Describe indications for and interpretation of the following laboratory tests: synovial fluid analysis, ESR, rheumatoid factor, antinuclear antibody test and anti-DNA test. (MK, PC)

**Smoking Cessation**

*The student shall:*

- Define, describe and discuss the pharmacologic effects of nicotine. (MK)
• Define, describe and discuss nicotine withdrawal symptoms. (MK)
• Define, describe and discuss the stages of change needed to initiate life-style change, including pre-contemplation, contemplation, preparation, action and maintenance. (MK)
• Define, describe and discuss common medical disorders associated with chronic smoking and the effects of quitting on future risk. (MK)
• Define, describe and discuss pharmocotherapeutic tools for smoking cessation, including nicotine replacement (MK)
• Define, describe and discuss the Centers for Medicare and Medicaid Services (CMS and the Joint Commission (JCAHO) quality measures for smoking cessation advice in hospitalized patients. (MK, SBP)
• Design interventions for individual patients that match the stage of behavior change demonstrated by that patient. (PC)

**Substance Abuse**

The student shall:

• Define, describe and discuss the presenting signs and symptoms of abuse of and the signs and symptoms of withdrawal from the following substances: alcohol, opioids, cocaine, amphetamines, hallucinogens, barbiturates, marijuana, anabolic steroids, benzodiazepines (MK)
• Define, describe and discuss the diagnostic criteria for substance abuse, dependency and addiction (MK)
• Define, describe and discuss the questions in the CAGE questionnaire and apply it to patients when assessing for substance abuse. (MK, PC)
• Demonstrate understanding of the principles of acute management of drug/alcohol intoxication and withdrawal. (MK, PC)

**Venous thromboembolism**

The student shall:

• Define, describe and discuss the risk factors for developing DVT (MK)
• Define, describe and discuss the presenting signs and symptoms of DVT and pulmonary embolism (PE). (MK)
• Define, describe and discuss the treatment modalities for DVT and PE. (MK, PC)
• Define, describe and discuss methods for DVT prophylaxis—including indications and efficacy. (MK, PC)
• Discuss indications for and interpretation of D-Dimer in suspected DVT/PE (MK, PC)
• Discuss and indications for duplex venous ultrasonography, ventilation perfusion scan, CT angiography and interpret same with consultation. (MK, PC)

**TEXTBOOKS (Required): All are available on Vitalsource**

• Young V, Blueprints Medicine, 5th ed. Lippincott, Williams &Wilkinson. (2010)
• Andreoli: Andreoli and Carpenter’s Ceil Essentials of Medicine 8th ed. Elsevier
• Bickley L: Bates’ Guide to Physical Examination and History Taking. 11th ed. Lippincott Williams & Wilkins (2013)

**Other Recommended Resources on Vitalsource:**

• DiGiovanna EL: An Osteopathic Approach to Diagnosis and Treatment. 3rd ed. Lippincott Williams & Wilkins (2005)
ONLINE REFERENCES:

LearnersTV videos: www.learnerstv.com/Free-Medical-Video-lectures.htm

National Guideline Clearinghouse: www.guideline.gov

National Institute of Health (NIH) Guidelines:

CDC Website: www.cdc.gov

NBOME Blueprint for the COMAT on Internal Medicine: www.nbome.org/docs/COMAT-Internal_Medicine.pdf

COURSE REQUIREMENTS:

Attendance, participation, grading components, etc. are all listed in the introductory portion of this manual and apply to all OMS 3 core rotations.

Patient logs, Procedure Logs, OMT Logs:
All logs are to be completed on-line using the E-value system. They must then be printed, signed by your preceptor and returned to your rotation counselor by fax, email, mail or in person within 7 days of completion of your rotation.

OP+P Assignment:
The articles assigned to this rotation are:
1. Impact of Osteopathic Manipulative Treatment on Cost of Care for Patients With Migraine Headache: A Retrospective Review of Patient Records
2. Immediate Effects of Osteopathic Manipulative Treatment in Elderly Patients with COPD

They are available on D2L. In order to obtain credit for an article the student must read the article and achieve a 70% on the quiz. The student may reread the article and take the test a second time if they do not successfully pass on the first attempt. Only two attempts will be allowed for each quiz.

End of Rotation Examination:
The end of rotation examination for this month is the COMAT covering Internal Medicine. You should download the browser in advance (available at Comat.starttest.com) in order to troubleshoot any compatibility issues with your computer system. The examination will take approximately 2.5 hours to complete and may only be administered in a proctored environment. As such, it will be offered during the final 3 weekdays of your rotation, the timing to be determined by the availability of your proctor. You will be notified of the time and place for the examination by the clinical rotations office prior to the 20th of the month. Contact the clinical rotations office at 601-318-6094 if you have questions regarding this process.

Reading Assignment:
See chart below for the full details of required/suggested readings and activities. In order to fully understand required elements of internal medicine and provide additional detail to answer questions that arise while on rotation, additional reading may be necessary. It is suggested that you pace yourself accordingly. Your preceptor may also assign readings/activities in addition to these listed.
# Reading Logs for Internal Medicine II

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<td>Review the CDC Guidelines for Prostate Cancer Screening. <a href="http://www.cdc.gov/cancer/prostate/basic_info/screening.htm">www.cdc.gov/cancer/prostate/basic_info/screening.htm</a></td>
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WILLIAM CAREY UNIVERSITY
COLLEGE OF OSTEOPATHIC MEDICINE

PEDIATRICS CLINICAL ROTATION SYLLABUS (OMS 7341)
2014-2015
(8 credit hrs)

COURSE DESCRIPTION

Introduction

This rotation will be your first formal introduction into the practice of pediatrics. Prior experience with children is not a prerequisite to enjoying this exciting rotation. In fact, you will find that the practice of pediatrics itself is what draws students to the field, rather than enjoyment of children solely.

Pediatrics is a broad field, which encompasses not only the health of your patient but the patient’s developmental, emotional and social well-being. The student should learn developmental milestones as well as become proficient in performing psychosocial and developmental histories and physicals while on this rotation.

Many people believe pediatrics is mainly an office-based practice, you will find there is much more to this specialty. Pediatricians treat a wide variety of diseases ranging from typical newborn issues to acutely and seriously ill children. Many of your preceptors may even participate in the critical care of newborns and older pediatric patients. Focus on the whole patient, wellness and preventative care are highly valued in this specialty and the rotation will offer the student an opportunity to develop these skills. We hope you will take the time to not only study pediatrics but allow this to become a very rewarding and unforgettable rotation.

1. Osteopathic Principles and Practices (OPP)

All preceptors are expected to encourage and verify application of osteopathic principles and osteopathic preceptors are expected to encourage and evaluate appropriate use of osteopathic manipulative treatment (OMT).

The student will:

- Integrate Osteopathic Principles and Practices into all patient care activities.
  - Consider the patient as a whole, including mind, body and spirit during patient encounters and when formulating treatment plans
  - Include the patient’s family/support network in decision making when appropriate
- Perform osteopathic structural examinations and osteopathic manipulative therapy (OMT) in the evaluation and management of patients when appropriate
- Demonstrate competence in the application of OMT appropriate to pediatrics.
Learn to adapt osteopathic diagnostic skills and treatments to the care of infants, children and adolescents.
Recognize somatic dysfunction in the pediatric age group.
Adapt osteopathic treatment modalities to adequately and safely treat infants, children and adolescents.

2. **Medical Knowledge (MK)**
Preceptors are expected to evaluate medical knowledge, understanding of disease process, and the student’s ability to apply cognitive skills in differential diagnosis.

*The student will:*
- Apply knowledge of physiology, pathology, anatomy, microbiology, biochemistry and other basic sciences to the diagnosis and treatment of their patients.

3. **Patient Care (PC)**
Preceptors are expected to evaluate the student’s ability to consistently demonstrate competence in patient care, including the ability to competently take a history, perform a physical examination, assist with medical procedures, and provide appropriate follow-up care.

*The student will:*
- Obtain an accurate and focused history in infants, children and adolescents
- Perform an accurate, organized and appropriately thorough physical examination on infants, children and adolescents.
- Generate an accurate differential diagnosis
- Propose appropriate diagnostic testing to narrow their differential diagnosis
- Appropriately interpret ECG, Laboratory and radiographic studies
- Propose an evidence-based management plan that includes pharmacologic and non-pharmacologic therapy for patients with acute presentations
- Assess patients for developmental milestones
- Perform or assist in the performance of the following procedures under supervision
  - Galbreath technique
  - Facial effleurage
  - Lymphatic pump
  - Rapid strep testing
  - Venipuncture
  - Intramuscular injection
  - Subcutaneous injection
  - Suturing simple lacerations
  - Lavage of ear canal
  - Measurement of head circumference
  - Obtaining vital signs in children < 2 years of age
4. **Interpersonal and Communication Skills (ICS)**
Preceptors are expected to evaluate student competence in verbal and written communication as well as the student’s skills in oral presentation, their history and physical examination findings.

*The student will:*
- Demonstrate ability to effectively communicate with children and their families.
- Use medical terminology as appropriate in communicating with other health care professionals.
- Avoid the use of medical terminology when communicating with patients and their family, unless they provide explanation of these terms.
- Document details of a patient encounter in a clear, concise and organized fashion.
- Present patients to the preceptor and other health care providers in a complete, organized and concise fashion.

5. **Professionalism (P)**
Preceptors are expected to evaluate professionalism, including respect, compassion, cultural sensitivity, accountability, attitude and responsiveness to feedback.

*The student will:*
- Display a nonjudgmental attitude.
- Demonstrate empathy when dealing with patients as well as with members of the health care team.
- Maintain patient confidentiality.
- Be punctual.
- Adhere to the WCUCOM dress code.
- Complete assigned tasks in a timely fashion.
- Accept feedback without taking personal offense.
- Use feedback as a means toward personal and professional growth.

6. **Practice Based Learning and Improvement (PBLI)**
Preceptors are expected to evaluate the student’s practice based learning and improvement skills—including the student’s ability to integrate evidence based medicine into patient care.

*The student will:*
- Access online resources and review articles such as Up-To-Date or the Cochrane Data base to obtain information regarding the care of their patients.
- Perform appropriate literature searches to obtain articles that pertain to their management of patients in the clinical setting.
- Apply evidence-based medicine when diagnosing patients and/or developing their management plan.
- Assess the quality of evidence they obtain from various resources.

7. **Systems-Based Practice (SBP)**
Preceptors are expected to evaluate the student’s ability to understand his/her role as a member of the health care team, the student’s understanding of local community medical resources, and the student’s understanding of providing cost effective medicine.

*The student will:*
- Be respectful toward all members of the healthcare team.
- Provide effective and timely communication to other members of the team.
• Identify barriers to optimal patient care
• Identify community resources available to enhance patient care

8. **Rotation Goals and General Objectives**
The Pediatrics rotation is designed to foster development of the fundamental knowledge and skills required for the care of infants, children and adolescents.

**Competency Based Goals and Objectives specific to pediatrics**

*The student shall:*

- Define, describe and discuss growth and development in a physical, physiologic and psychosocial context from birth through adolescence. (MK)
- Apply knowledge of growth and development to interviewing techniques, during assessment and in management considerations. (PC)
- Demonstrate interviewing and physical examination skills required to conduct interviews with children or adolescents and their families and perform age appropriate physical examinations (ICS, PC,)
- Define, describe and discuss the diagnosis and initial management of congenital problems and genetic diseases of infancy and childhood (MK,)
- Define, describe and discuss the strategies necessary for health supervision including knowledge of immunizations and age appropriate anticipatory guidance for nutrition, developmental/behavioral counseling and injury prevention. (PC, MK, SBP)
- Demonstrate understanding of the interplay between the child, the family and the community on child health and how to utilize community resources to support children and families. (PC, MK, SBP, OPP)
- Identify parental and patient concerns and perspectives including cultural and religious influences (ICS, OPP)
- Demonstrate proficiency in writing different types of medical notes, including SOAP notes, newborn nursery admission notes, admission history & physicals, admission orders, discharge summaries, procedure notes and prescriptions.(ICS)
- Select, justify, and interpret clinical tests and imaging in regards to both patient age and pathological processes (PC, MK)
- Research disease processes not covered by the reading assignments, but encountered during clinic and hospital rounds as assigned by your attending physicians (PBLI)
- List an age appropriate differential diagnosis for patients presenting with acute onset of each of the following symptoms: abdominal pain, cough/wheeze, diarrhea, fever with rash, fever without source, headache, lethargy or irritability, limp/extremity pain, otalgia, rash, rhinorrhea, seizures, sore throat, vomiting (MK)
- List an age appropriate differential diagnosis of pediatric patients presenting with each of the following physical findings: abdominal mass, bruising, heart murmur, hepatomegaly, lymphadenopathy, splenomegaly, petechiae/purpura, red eye (MK, PC)
- List an age appropriate differential diagnosis for patients with each of the following laboratory findings: anemia, hematuria, proteinuria, positive PPD (Mantoux test). (MK)
- Define, describe and discuss the epidemiology, clinical, laboratory and radiographic findings for each of the following pediatric conditions: (MK, PC)
  - **Pulmonary:** asthma, bronchiolitis, community acquired pneumonia, croup, viral URI
  - **Febrile illnesses:** bacteremia/sepsis, meningitis, occult bacteremia, Kawasaki disease, meningococcemia
  - **GU:** urinary tract infection, pyelonephritis, glomerulonephritis, nephrotic syndrome
    - **HEENT:** group A streptococcal pharyngitis, mononucleosis, otitis media, otitis externa,
    - **Allergic rhinitis, sinusitis conjunctivitis**
• **GI**: appendicitis, constipation, gastroenteritis, gastroesophageal reflux, pyloric stenosis, hepatitis
• **Dermatologic**: viral exanthems, atopic dermatitis, cellulitis, impetigo, lice, monilial infection, scabies, urticarial
• **Musculoskeletal**: hip dysplasia, Legg-Calve-Perthes disease, nursemaid elbow, Osgood Schlatter disease, osteomyelitis, septic arthritis, slipped capital femoral epiphysis, transient synovitis
• **Neurologic**: headache, febrile seizures
• **Trauma**: fractures, child abuse, head injury/concussion
• **Miscellaneous**: ITP, Henoch Shoenlein Purpura, common childhood malignancies, sickle cell anemia

Describe how to assess if a drug is excreted in breast milk and if it is safe to use by a breastfeeding mother (MK, PBLI)

List medications that are contraindicated or must be used with extreme caution in the pediatric population. (MK)

Describe the physical findings of dehydration in infants and children as well as the physical findings in hypovolemic shock. (PC)

Calculate and write orders for fluid therapy for a child with severe dehydration, including “rescue” fluid bolus, fluid deficits and ongoing maintenance fluid. (MK, PC)

Explain use of oral rehydration therapy for mild to moderate dehydration to the parents of a child with acute gastroenteritis (PC, ICS, MK)

Describe the developmental vulnerability for poisoning and accidental ingestion in infants, toddlers, children and adolescents. (MK)

Describe environmental sources of lead and screening tools to identify children at risk for lead poisoning (MK, SBP)

Describe the acute signs and symptoms of toxic ingestions of acetaminophen, iron, alcohol and opioids. (MK, PC)

Describe the role of the Poison Control Center in the management of the patient with accidental or intentional toxic ingestion. (SBP)

List characteristics of the history and physical examination that should trigger concern for possible child abuse/neglect (MK)

**TEXTBOOKS (Required): All are available on Vitalsource**
Marino, BS: Blueprints Pediatrics, 6th ed. Lippincott Williams &Wilkins (2013)

**Other Recommended Resources on Vitalsource:**
• DiGiovanna: An Osteopathic Approach to Diagnosis and Treatment 3rd Ed. Lippincott Williams &Wilkins (2004)
• John Hopkin’s Hospital: Harriet Lane Handbook, 19th ed. Elsevier

**ONLINE REFERENCES: (TBA)**

COURSE REQUIREMENTS:

Attendance, participation, grading components, etc. are all listed in the introductory portion of this manual and apply to all OMS 3 core rotations.

Logs: All logs are to be completed on-line using the E-value system. They must then be printed, signed by your preceptor and returned to your rotation counselor by fax, email, mail or in person within 7 days of completion of your rotation.

OP+P Assignment:
The articles assigned to this rotation are:

1) Brachial Plexus Injuries in Neonates: An Osteopathic Approach
2) Iliacus Tender Points in Young Adults: A Pilot Study

They are available on D2L. In order to obtain credit for an article the student must read the article and achieve a 70% on the quiz. The student may reread the article and take the test a second time if they do not successfully pass on the first attempt. Only two attempts will be allowed for each quiz.

End of Rotation Examination:

The end of rotation examination for this month is the COMAT covering Pediatrics. You should download the browser in advance (available at Comat.starttest.com) in order to troubleshoot any compatibility issues with your computer system. The examination will take approximately 2.5 hours to complete and may only be administered in a proctored environment. As such, it will be offered during the final 3 weekdays of your rotation, the timing to be determined by the availability of your proctor. You will be notified of the time and place for the examination by the clinical rotations office prior to the 20th of the month. Contact the clinical rotations office at 601-318-6094 if you have questions regarding this process.

Reading Assignment:

See chart below for the full details of required/suggested readings and activities. In order to fully understand required elements of pediatrics and provide additional detail to answer questions that arise while on rotation, additional reading may be necessary. It is suggested that you pace yourself accordingly. Your preceptor may also assign readings/activities in addition to these listed.

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WILLIAM CAREY UNIVERSITY
COLLEGE OF OSTEOPATHIC MEDICINE

GENERAL SURGERY I CLINICAL ROTATION SYLLABUS (OMS 7351)
2014-2015
(8 credit hrs)

COURSE DESCRIPTION

Introduction
It is not the purpose of the surgical rotation to train medical students in the practice of surgery. The third-year rotation in surgery is designed to provide the student with a broad experience in the general surgical disciplines. This experience is designed to emphasize direct patient contact, including all phases of evaluation, diagnosis and treatment. The rotation includes opportunities to apply the principles learned in the classroom and anatomy labs. The rotation includes supervised experiences in both inpatient and ambulatory care settings with exposure to various surgical subspecialties. Emphasis is placed on data gathering, differential diagnosis, patient management, maintenance of medical records, performance of diagnostic and therapeutic skills, appropriate triage and referral, follow up care and the provision of health education and counseling.

During this rotation, you will see patients who present with complaints requiring emergent intervention as well as those in whom surgical procedures may be delayed. You will learn how to do a thorough surgical history and physical exam as well as how to perform some invasive procedures. You will learn to develop a plan of treatment for specific surgical conditions and develop an understanding of risk vs. benefit when considering therapeutic options. You will learn to identify conditions for which surgical intervention and consultation is necessary with a focus on understanding the etiology, pathogenesis, clinical laboratory and radiologic findings of common surgical problems.

During your rotation you will be expected to learn specific procedures such as suturing, intravenous catheter placement, inserting Foley catheters and nasogastric tubes, etc. In addition, you will come to understand the scope and limitations of surgical treatment and alternatives to surgery, surgical outcomes and possible complications.

General Surgery provides an opportunity to experience the application of osteopathic principles utilizing diagnostic and treatment skills that often focus more on the visceral functions of the body rather than somatic function. Many surgical conditions of the thorax and abdomen have well defined viscerosomatic reflexes that aid in the diagnosis of the condition. Application of osteopathic skills, such as early mobilization of the patient and post-operative OMT reduces the likelihood of complications including deep vein thrombosis, atelectasis and fever.
This is also a rotation where you will see patients who, during recovery, are dependent on their personal support system for spiritual, emotional and physical support. The rotation will help build your appreciation of the need to interact with the whole patient, including their family and significant others.

1. **Osteopathic Principles and Practices (OPP)**
All preceptors are expected to encourage and verify application of osteopathic principles and osteopathic preceptors are expected to encourage and evaluate appropriate use of osteopathic manipulative treatment (OMT).

_The student will:_
- Integrate Osteopathic Principles and Practices into all patient care activities.
  - Consider the patient as a whole, including mind, body and spirit during patient encounters and when formulating treatment plans
  - Include the patient’s family/support network in decision making when appropriate
- Perform osteopathic structural examinations and osteopathic manipulative therapy (OMT) in the evaluation and management of patients when appropriate
- Demonstrate competence in the application of OMT appropriate in management of the surgical patient
  - Learn to adapt osteopathic diagnostic skills and treatments across all age groups.
  - Recognize somatic dysfunction across all age groups
  - Adapt osteopathic treatment modalities to adequately and safely treat patients in all age groups.

2. **Medical Knowledge (MK)**
Preceptors are expected to evaluate medical knowledge, understanding of disease process, and the student’s ability to apply cognitive skills in differential diagnosis.

_The student will:_
- Apply knowledge of physiology, pathology, anatomy, microbiology, biochemistry and other basic sciences to the diagnosis and treatment of their patients.

3. **Patient Care (PC)**
Preceptors are expected to evaluate the student’s ability to consistently demonstrate competence in patient care, including the ability to competently take a history, perform a physical examination, assist with medical procedures, and provide appropriate follow-up care.

_The student will:_
- Obtain an accurate and focused history in patients of all ages
- Perform an accurate, organized and appropriately thorough physical examination on patients of all ages
- Generate an accurate differential diagnosis
- Propose appropriate diagnostic testing to narrow their differential diagnosis
- Appropriately interpret ECG, Laboratory and radiographic studies
- Propose an evidence-based management plan that includes pharmacologic and non-pharmacologic therapy for patients with acute presentations
- Perform or assist in the performance of the following procedures under supervision. (It is understood that the opportunity to perform all of these procedures may not occur on all rotations.)
It is intended that the student perform all of these procedures at some point during their General Surgical rotations.
  o Venipuncture
  o IV catheter insertion
  o I+D of abscess
  o Rectal examination with hemoccult testing
  o Insertion of NG tube
  o Insertion of Foley catheter
  o Suturing/stapling of surgical incisions or other wounds
  o Central venous catheter placement
  o Chest tube placement

  • In addition, the student should observe a variety of general surgical procedures in the operating room.

4. **Interpersonal and Communication Skills (ICS)**
Preceptors are expected to evaluate student competence in verbal and written communication as well as the student’s skills in oral presentation their history and physical examination findings.

*The student will:*
  • Demonstrate ability to effectively communicate with patients of all ages.
  • Demonstrate ability to identify and communicate with caregivers.
  • Use medical terminology as appropriate in communicating with other health care professionals
  • Avoid the use of medical terminology when communicating with patients, unless they provide explanation of these terms
  • Document details of a patient encounter in a clear, concise and organized fashion
  • Present patients to the preceptor and other health care providers in a complete, organized and concise fashion.

5. **Professionality (P)**
Preceptors are expected to evaluate professionalism, including respect, compassion, cultural sensitivity, accountability, attitude and responsiveness to feedback.

*The student will:*
  • Display a nonjudgmental attitude
  • Demonstrate empathy when dealing with patients as well as with members of the health care team
  • Maintain patient confidentiality
  • Be punctual
  • Adhere to the WCUCOM dress code
  • Complete assigned tasks in a timely fashion
  • Accept feedback without taking personal offense
  • Use feedback as a means toward personal and professional growth

6. **Practice Based Learning and Improvement (PBLI)**
Preceptors are expected to evaluate the student’s practice based learning and improvement skills—including the student’s ability to integrate evidence based medicine into patient care.

*The student will:*
  • Access online resources and review articles such as Up-To-Date or the Cochrane Data base to
obtain information regarding the care of their patients

- Perform appropriate literature searches to obtain articles that pertain to their management of patients in the clinical setting
- Apply evidence-based medicine when diagnosing patients and/or developing their management plan
- Assess the quality of evidence they obtain from various resources.

7. **Systems-Based Practice (SBP)**

Preceptors are expected to evaluate the student’s ability to understand his/her role as a member of the health care team, the student’s understanding of local community medical resources, and the student’s understanding of providing cost effective medicine.

The student will:

- Be respectful toward all members of the healthcare team
- Provide effective and timely communication to other members of the team
- Identify barriers to optimal patient care
- Identify community resources available to enhance patient care

**Competency Based Learning Objectives Based on Patient Presentation**

**Abdominal masses**

*The student shall:*

- List common causes of hepatomegaly (MK)
- Define, describe and discuss the role of liver function testing, radionucleotide imaging, ultrasound and CT scanning in the evaluation of hepatomegaly. (MK, PC)
- Define, describe and discuss the most frequently encountered hepatic tumors, their presentation, pathophysiology, and management. (MK, PC)
- List the causes of splenomegaly (MK)
- Define, describe and discuss the short and long-term complications of splenectomy (MK)
- List the differential diagnosis of pancreatic mass and discuss the most useful diagnostic studies (MK)
- Describe the evaluation and management of abdominal aortic aneurysm, including imaging studies and indications for surgical repair (MK, PC)

**Abdominal Pain**

*The student shall:*

- Gather a focused history various patients presenting with abdominal pain (PC)
- Demonstrate the components of a complete abdominal examination including rectal, genital and pelvic examination (PC)
- Develop a differential diagnosis of patients presenting with abdominal pain that is based on the location of pain, age of the patient and associated medical conditions. (MK, PC)
- Explain the rationale for using various diagnostic modalities in the evaluation of abdominal pain, including laboratory, imaging and interventional studies/techniques. (MK, PC)
- Define, describe and discuss the symptoms, signs, pathophysiology, diagnostic strategy and initial management of patients presenting with: Acute appendicitis, cholecystitis, pancreatitis, peptic ulcer disease, diverticulitis, inflammatory bowel disease, small bowel obstruction, colon obstruction, mesenteric ischemia, leaking abdominal aortic aneurysm, ectopic pregnancy, ovarian torsion, tubo-ovarian abscess, and testicular torsion (MK, PC)
Define, describe and discuss the pathophysiology and diagnostic approach toward patients with post-operative abdominal pain. (MK, PC)

**Abdominal wall and groin masses**

*The student shall:*

- Discuss the differential diagnosis of inguinal pain, mass or bulge. (MK)
- Describe the anatomic differences between direct and indirect hernias (MK)
- Define and discuss the clinical significance of incarcerated, strangulated, reducible ad Richter’s hernias. (MK)
- Describe the potential sites for abdominal wall hernias (MK)
- Describe clinical factors that contribute to development of incisional hernias (MK, PC)

**Asymptomatic patients with positive tests**

*The student shall:*

- Define, describe and discuss the sensitivity, specificity implications for screening, diagnosis and follow-up as it relates to Prostate Specific Antigen (PSA). (MK)
- Define, describe and discuss the natural history of symptomatic and asymptomatic gallstone disease. (MK)
- Discuss the indications for cholecystectomy. (MK)
- Define, describe and discuss the significance of carotid bruit, the indications and options for further evaluation and available treatment options (MK, PC)

**Breast problems**

*The student shall:*

- Define, describe and discuss the approach to a patient presenting with new findings of a breast mass or a with a positive mammogram. (MK,PK)
- List factors that increase the risk of breast cancer (MK)
- Define, describe and discuss the clinical staging of breast cancer(MK)
- Describe the current recommendations for screening mammography (MK, SBP)
- Define, describe and discuss the therapeutic options for treatment of breast cancer (MK, PC, PBLI)
- Demonstrate a thorough and accurate breast examination.. (PC)

**Chest pain and shortness of breath**

*The student shall:*

- Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options for spontaneous pneumothorax (MK, PC)
- Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options and strategies for prevention of pulmonary embolism (MK, PC)
- Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options for patients with esophageal rupture. (MK, PC)
- Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options for patients with empyema. (MK, PC)

**Gastrointestinal hemorrhage**

*The student shall:*

- Differentiate between upper and lower GI hemorrhage (MK, PC)
• Outline the initial management of a patient with an acute GI bleed, including indications for fluid replacement and transfusion. (MK, PC)
• Discuss indications for surgical intervention in patients with a GI bleed. (MK)

**Jaundice**
The student shall:
• Define, describe and discuss the differential diagnosis, pathophysiology and common causes of jaundice. (MK)
• Define, describe and discuss the importance of the following physical findings in jaundiced patients: Tender vs. nontender abdominal mass, Courvoisier’s sign, Murphy’s sign, Charcot’s triad, Reynold’s pentad. (MK, PC)
• Define, describe and discuss the role of laboratory and imaging studies in the initial evaluation of the jaundiced patient. (MK, PC)

**Leg pain**
The student shall:
• Define, describe and discuss atherosclerosis, it’s etiology, prevention and sites of predilection (MK).
• Compare and contrast neurogenic and vascular claudication. (MK)
• Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options for patients with claudication. (MK, PC)
• Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options for patients presenting with acute arterial occlusion. (MK, PC)
• Compare and contrast by location, appearance and symptoms, leg ulcers due to arterial disease, venous stasis, neuropathy, infection and malignancy. (MK, PC)

**Lung nodule**
The student shall:
• Create an algorithm for the evaluation of a patient with a lung nodule on chest x-ray. (MK, PC)
• Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and risk factors for developing lung cancer. (MK, PC)
• List the most common sources of malignant metastases to the lung (MK)
• Describe the role of surgery in the treatment of lung cancer. (MK)
• List common tumors of the anterior, posterior and superior mediastinum. (MK)

**Neck mass**
The student shall:
• Describe the most common neoplastic neck masses and their origin. (MK)
• Define, describe and discuss the evaluation of a patient with a thyroid nodule.
• Define, describe and discuss the signs, symptoms, pathophysiology and prognosis of thyroid malignancies. (MK)

**Non-healing wounds**
The student shall:
• Define, describe and discuss normal wound healing (MK)
• Define “non-healing”(MK)
• Define, describe and discuss the role of pressure, ischemia, infection, malignancy and foreign body in impaired wound healing. (MK)
Perianal problems
The student shall:
- Develop a differential diagnosis for patients with perianal pain. (MK, PC)
- Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options for anal fissures, perianal abscess, thrombosed external hemorrhoid, rectal prolapse, and fistula in ano. (MK, PC)

Perioperative Care
The student shall:
- Define, describe and discuss components in a patient’s past medical history that influence operative risk. (MK)
- Describe tools that may assist in perioperative risk assessment, including laboratory studies, imaging, etc. (MK, PC)
- Define, describe and discuss nutritional assessment as well as the following common nutritional and deficiency syndromes: protein-calorie malnutrition, chronic alcoholism, iron and B12 deficiencies and malabsorption syndromes. (MK)
- Discuss the components of informed consent as it applies to surgical intervention. (MK, PC, ICS)
- Accurately document a procedure note. (ICS)
- Define, describe and discuss conditions that potentially can interfere with fluid and electrolyte homeostasis in the peri-operative period. (MK)
- Describe factors that may impair coagulation or increase bleeding risk. (MK, PC)
- List the conditions that must exist for a patient to be discharged following general or spinal anesthesia. (MK, PC)
- Define, describe and discuss the expected outcome of uncomplicated surgical procedures. (MK, PC)
- Define, describe and discuss the differential diagnosis for patients with postoperative fever in the first postoperative day, the first 1-3 days, and occurring after 72 hours. (MK)
- Define, describe and discuss postoperative wound complications. (MK)
- Define, describe and discuss causes of dyspnea and respiratory distress in the postoperative period. (MK, PC)
- Define, describe and discuss the causes, evaluation, and management of hypotension in the postoperative period. (MK, PC)
- Define, describe and discuss disorders of the alimentary tract following laparotomy. (MK)

Scrotal pain and swelling
The student shall:
- Generate a differential diagnosis for a patient presenting with pain or a mass in the scrotum, including means to differentiate testicular from extra-testicular origin, benign vs. malignant causes and emergent vs. non-emergent causes. (MK, PC)
- Develop a diagnostic algorithm for the evaluation of scrotal pain/swelling. (MK, PC)
- Perform an accurate and focused physical examination of the scrotum and genitalia. (PC)
- Interpret (with consultation) a scrotal ultrasound. (PC)

Shock
The student shall:
- Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options for: hemorrhagic, cardiogenic, septic, neurogenic and anaphylactic shock.
• Discuss priorities and specific resuscitation goals for each form of shock, including choice of fluids, indications for transfusion, indications for invasive monitoring, and use of inotropes. (MK, PC)

**Skin and soft tissue lesions**

*The student shall:*

- Describe and discuss commonly used anesthetics, advantages and disadvantages of epinephrine combined with local anesthetics, dose ranges and toxicities.
- Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options for basal and squamous skin cancers. (MK, PC)
- Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options for malignant melanoma. (MK, PC)
- Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options for soft tissue sarcoma. (MK, PC)

**Transplantation**

*The student shall:*

- Define, describe and discuss common organs and tissues currently being transplanted, acceptable and exclusionary criteria for donation by organ system, and potential ethical issues that relate to transplantation. (MK, PC, P, SBP)
- Define, describe and discuss the mechanism of action and major side-effects of commonly prescribe immunosuppressive agents. (MK)
- Define, describe and discuss the signs, symptoms, and pathophysiology of rejection (acute and chronic). (MK)
- Discuss common infectious complications of immunosuppression, their prevention and management. (MK, PC)

**Trauma**

*The student shall:*

- Outline the and describe the ABCDE’s of trauma resuscitation(include primary and secondary survey) (MK)
- Define, describe and discuss the four stages of hemorrhagic shock. (MK)
- Describe appropriate fluid resuscitation of the trauma patient. (MK, PC)
- Discuss types, etiology and prevention of coagulopathies typically found in patients with massive hemorrhage. (MK, PC)
- Discuss how the trauma system is organized in Mississippi (SBP)
- Describe the initial evaluation, stabilization and management of patients presenting with: closed head injury, spinal injury, blunt vs. penetrating thoracic injury, blunt vs. penetrating abdominal injury, urinary injury and orthopedic injuries. (MK, PC)
- Define, describe and discuss the estimation of body surface area involved in a thermal burn, fluid resuscitation for major burns and principles of wound management. (MK, PC)
- Discuss the economic impact of traumatic injury and disability in the US. (SBP)

**Urinary complaints**

*The student shall:*

- Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options for patients presenting with hematuria (MK, PC)
**TEXTBOOKS (Required):**
- Blueprints Surgery 5th ed. Lippincott Williams & Wilkins (2012)
- *DiGiovanna: Osteopathic Approach to Diagnosis and treatment.* 3rd ed. Lippincott Williams & Wilkins
- Lawrence: Essentials of General Surgery. 5th ed. Lippincott Williams & Wilkins

**Other Recommended Resources:**
- Moore KL: Clinically Oriented Anatomy. 7th ed. Lippincott Williams & Wilkins

**ONLINE REFERENCES:**


NBOME Blueprint for COMAT on Surgery: [https://www.nbome.org/comat-su.asp?m=can](https://www.nbome.org/comat-su.asp?m=can)

**COURSE REQUIREMENTS:**

Attendance, participation, grading components, etc. are all listed in the introductory portion of this manual and apply to all OMS 3 core rotations.

**Logs:** All logs are to be completed on-line using the E-value system. They must then be printed, signed by your preceptor and returned to your rotation counselor by fax, email, mail or in person within 7 days of completion of your rotation.

**OP+P Assignment:**

*The articles assigned to this rotation are:*

1. Contribution of Osteopathic Medicine to Care of Patients With Chronic Wounds
2. Effect of Osteopathic Manipulative Treatment on Incidence of Postoperative Ileus and Hospital Length of Stay in General Surgical Patients

They are available on D2L. In order to obtain credit for an article the student must read the article and achieve a 70% on the quiz. The student may reread the article and take the test a second time if they do not successfully pass on the first attempt. Only two attempts will be allowed for each quiz.

**End of Rotation Examination:**

The end of rotation examination will be released on D2L on the last weekday of the calendar month at 4pm. The test will close at 6pm. Contact the clinical rotations office at 601-318-6094 in the event of technical difficulties when taking the examination.

**Reading Assignment:** See chart below for the full details of required/suggested readings and activities. In order to fully understand required elements of general surgery and provide additional detail to answer questions that arise while on rotation, additional reading may be necessary. It is suggested that you pace yourself accordingly. Your preceptor may also assign readings/activities in addition to these listed.
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<td>3</td>
<td>Fluids/Electrolytes and Acid-base Balance</td>
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<td>Surgical Infections</td>
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<td>LearnersTV video of anatomical dissection Peritoneal Cavity #1 and #2</td>
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<td>Parathyroid gland</td>
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<td>17</td>
<td>Pituitary, Adrenal and MEN</td>
<td>Chapter 15</td>
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</table>
COURSE DESCRIPTION

Surgery II is designed to further train the student in basic surgical skills, preoperative patient evaluations, operating room procedures, and postoperative patient care. It may be done as a continuation of your General surgery I rotation, an additional month of General surgery with a different surgical service or (with preapproval of the Associate Dean of Clinical Sciences) as a sub-specialty surgical service. Sub-specialty surgical services will only be approved if that service is compatible with the goals and objectives outlined below.

During this rotation the student will: continue to develop skills in his/her performance of a detailed pre-surgical history and physical examination; learn the reasons for the selection of common pre-surgical tests; become involved with all parameters of a patient’s evaluation needed to reach a diagnosis; learn the method of grading operative risks; be exposed to the considerations employed in the selection of the anesthetic agents and become thoroughly familiar with operating room protocol.

The student should have the opportunity to provide assistance on certain operative procedures and be expected to follow the patient’s care from admission to discharge. They are expected to become familiar with hospital surgical record requirements and should gain experience in ambulatory surgical diagnosis and postoperative follow-up.

Throughout the rotation the osteopathic philosophy will be emphasized, namely that: (1) the body is a unit, the person is a unit of body, mind, and spirit; (2) the body is capable of self-regulation, self-healing, and health maintenance; (3) structure and function are reciprocally related; and (4) rational treatment is based upon an understanding of the basic principles of body unity, self-regulation, and the interrelationship of structure and function.

Osteopathic physicians strive to treat their patients as part of the medical team, they endeavor to know their patient as a whole, and they make every effort to teach their patients how to achieve optimal health.

1. Osteopathic Principles and Practices (OPP)
All preceptors are expected to encourage and verify application of osteopathic principles and osteopathic preceptors are expected to encourage and evaluate appropriate use of osteopathic manipulative treatment (OMT).
The student will:

- Integrate Osteopathic Principles and Practices into all patient care activities.
  - Consider the patient as a whole, including mind, body and spirit during patient encounters and when formulating treatment plans
  - Include the patient’s family/support network in decision making when appropriate
- Perform osteopathic structural examinations and osteopathic manipulative therapy (OMT) in the evaluation and management of patients when appropriate
- Demonstrate competence in the application of OMT appropriate in management of the surgical patient
  - Learn to adapt osteopathic diagnostic skills and treatments across all age groups.
  - Recognize somatic dysfunction across all age groups
  - Adapt osteopathic treatment modalities to adequately and safely treat patients in all age groups.

2. Medical Knowledge (MK)
Preceptors are expected to evaluate medical knowledge, understanding of disease process, and the student’s ability to apply cognitive skills in differential diagnosis.

The student will:

- Apply knowledge of physiology, pathology, anatomy, microbiology, biochemistry and other basic sciences to the diagnosis and treatment of their patients.

3. Patient Care (PC)
Preceptors are expected to evaluate the student’s ability to consistently demonstrate competence in patient care, including the ability to competently take a history, perform a physical examination, assist with medical procedures, and provide appropriate follow-up care.

The student will:

- Obtain an accurate and focused history in patients of all ages
- Perform an accurate, organized and appropriately thorough physical examination on patients of all ages
- Generate an accurate differential diagnosis
- Propose appropriate diagnostic testing to narrow their differential diagnosis
- Appropriately interpret ECG, Laboratory and radiographic studies
- Propose an evidence-based management plan that includes pharmacologic and non-pharmacologic therapy for patients with acute presentations
- Perform or assist in the performance of the following procedures under supervision. (It is understood that the opportunity to perform all of these procedures may not occur on all rotations. It is intended that the student perform all of these procedures at some point during their General Surgical rotations.
  - Venipuncture
  - IV catheter insertion
  - I+D of abscess
  - Rectal examination with hemoccult testing
  - Insertion of NG tube
  - Insertion of Foley catheter
• Suturing/stapling of surgical incisions or other wounds
• Central venous catheter placement
• Chest tube placement

• In addition, the student should observe a variety of general surgical procedures in the operating room.

4. **Interpersonal and Communication Skills (ICS)**
Preceptors are expected to evaluate student competence in verbal and written communication as well as the student’s skills in oral presentation, their history and physical examination findings.

*The student will:*
- Demonstrate ability to effectively communicate with patients of all ages.
- Demonstrate ability to identify and communicate with caregivers.
- Use medical terminology as appropriate in communicating with other health care professionals.
- Avoid the use of medical terminology when communicating with patients, unless they provide explanation of these terms.
- Document details of a patient encounter in a clear, concise and organized fashion.
- Present patients to the preceptor and other health care providers in a complete, organized and concise fashion.

5. **Professionalism (P)**
Preceptors are expected to evaluate professionalism, including respect, compassion, cultural sensitivity, accountability, attitude and responsiveness to feedback.

*The student will:*
- Display a nonjudgmental attitude.
- Demonstrate empathy when dealing with patients as well as with members of the health care team.
- Maintain patient confidentiality.
- Be punctual.
- Adhere to the WCUCOM dress code.
- Complete assigned tasks in a timely fashion.
- Accept feedback without taking personal offense.
- Use feedback as a means toward personal and professional growth.

6. **Practice Based Learning and Improvement (PBLI)**
Preceptors are expected to evaluate the student’s practice based learning and improvement skills—including the student’s ability to integrate evidence based medicine into patient care.

*The student will:*
- Access online resources and review articles such as Up-To-Date or the Cochrane Data base to obtain information regarding the care of their patients.
- Perform appropriate literature searches to obtain articles that pertain to their management of patients in the clinical setting.
- Apply evidence-based medicine when diagnosing patients and/or developing their management plan.
- Assess the quality of evidence they obtain from various resources.
7. **Systems-Based Practice (SBP)**

Preceptors are expected to evaluate the student’s ability to understand his/her role as a member of the health care team, the student’s understanding of local community medical resources, and the student’s understanding of providing cost effective medicine.

*The student will:*
- Be respectful toward all members of the healthcare team
- Provide effective and timely communication to other members of the team
- Identify barriers to optimal patient care
- Identify community resources available to enhance patient care

**Competency Based Learning Objectives Based on Patient Presentation**

**Abdominal masses**

*The student shall:*
- List common causes of hepatomegaly (MK)
- Define, describe and discuss the role of liver function testing, radionucleotide imaging, ultrasound and CT scanning in the evaluation of hepatomegaly. (MK, PC)
- Define, describe and discuss the most frequently encountered hepatic tumors, their presentation, pathophysiology, and management. (MK, PC)
- List the causes of splenomegaly (MK)
- Define, describe and discuss the short and long-term complications of splenectomy (MK)
- List the differential diagnosis of pancreatic mass and discuss the most useful diagnostic studies (MK)
- Describe the evaluation and management of abdominal aortic aneurysm, including imaging studies and indications for surgical repair (MK, PC)

**Abdominal Pain**

*The student shall:*
- Gather a focused history various patients presenting with abdominal pain (PC)
- Demonstrate the components of a complete abdominal examination including rectal, genital and pelvic examination (PC)
- Develop a differential diagnosis of patients presenting with abdominal pain that is based on the location of pain, age of the patient and associated medical conditions. (MK, PC)
- Explain the rationale for using various diagnostic modalities in the evaluation of abdominal pain, including laboratory, imaging and interventional studies/techniques. (MK, PC)
- Define, describe and discuss the symptoms, signs, pathophysiology, diagnostic strategy and initial management of patients presenting with: Acute appendicitis, cholecystitis, pancreatitis, peptic ulcer disease, diverticulitis, inflammatory bowel disease, small bowel obstruction, colon obstruction, mesenteric ischemia, leaking abdominal aortic aneurysm, ectopic pregnancy, ovarian torsion, tubo-ovarian abscess, and testicular torsion (MK, PC)
- Define, describe and discuss the pathophysiology and diagnostic approach toward patients with post-operative abdominal pain. (MK, PC)
Abdominal wall and groin masses
The student shall:
- Discuss the differential diagnosis of inguinal pain, mass or bulge. (MK)
- Describe the anatomic differences between direct and indirect hernias (MK)
- Define and discuss the clinical significance of incarcerated, strangulated, reducible ad Richter’s hernias. (MK)
- Describe the potential sites for abdominal wall hernias (MK)
- Describe clinical factors that contribute to development of incisional hernias (MK, PC)

Asymptomatic patients with positive tests
The student shall:
- Define, describe and discuss the sensitivity, specificity implications for screening, diagnosis and follow-up as it relates to Prostate Specific Antigen (PSA). (MK)
- Define, describe and discuss the natural history of symptomatic and asymptomatic gallstone disease. (MK)
- Discuss the indications for cholecystectomy. (MK)
- Define, describe and discuss the significance of carotid bruit, the indications and options for further evaluation and available treatment options (MK, PC)

Breast problems
The student shall:
- Define, describe and discuss the approach to a patient presenting with new findings of a breast mass or a with a positive mammogram. (MK,PK)
- List factors that increase the risk of breast cancer (MK)
- Define, describe and discuss the clinical staging of breast cancer(MK)
- Describe the current recommendations for screening mammography (MK, SBP)
- Define, describe and discuss the therapeutic options for treatment of breast cancer (MK, PC, PBLI)
- Demonstrate a thorough and accurate breast examination,. (PC)

Chest pain and shortness of breath
The student shall:
- Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options for spontaneous pneumothorax (MK, PC)
- Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options and strategies for prevention of pulmonary embolism (MK, PC)
- Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options for patients with esophageal rupture. (MK, PC)
- Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options for patients with empyema. (MK, PC)

Gastrointestinal hemorrhage
The student shall:
- Differentiate between upper and lower GI hemorrhage (MK, PC)
- Outline the initial management of a patient with an acute GI bleed, including indications for fluid replacement and transfusion. (MK, PC)
- Discuss indications for surgical intervention in patients with a GI bleed. (MK)
Jaundice
The student shall:
- Define, describe and discuss the differential diagnosis, pathophysiology and common causes of jaundice. (MK)
- Define, describe and discuss the importance of the following physical findings in jaundiced patients: Tender vs. nontender abdominal mass, Courvoisier’s sign, Murphy’s sign, Charcot’s triad, Reynold’s pentad. (MK, PC)
- Define, describe and discuss the role of laboratory and imaging studies in the initial evaluation of the jaundiced patient. (MK, PC)

Leg pain
The student shall:
- Define, describe and discuss atherosclerosis, it’s etiology, prevention and sites of predilection (MK).
- Compare and contrast neurogenic and vascular claudication. (MK)
- Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options for patients with claudication. (MK, PC)
- Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options for patients presenting with acute arterial occlusion. (MK, PC)
- Compare and contrast by location, appearance and symptoms, leg ulcers due to arterial disease, venous stasis, neuropathy, infection and malignancy. (MK, PC)

Lung nodule
The student shall:
- Create an algorithm for the evaluation of a patient with a lung nodule on chest x-ray. (MK, PC)
- Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and risk factors for developing lung cancer. (MK, PC)
- List the most common sources of malignant metastases to the lung (MK)
- Describe the role of surgery in the treatment of lung cancer. (MK)
- List common tumors of the anterior, posterior and superior mediastinum. (MK)

Neck mass
The student shall:
- Describe the most common neoplastic neck masses and their origin. (MK)
- Define, describe and discuss the evaluation of a patient with a thyroid nodule.
- Define, describe and discuss the signs, symptoms, pathophysiology and prognosis of thyroid malignancies. (MK)

Non-healing wounds
The student shall:
- Define, describe and discuss normal wound healing (MK)
- Define “non-healing” (MK)
- Define, describe and discuss the role of pressure, ischemia, infection, malignancy and foreign body in impaired wound healing. (MK)
**Perianal problems**
The student shall:
- Develop a differential diagnosis for patients with perianal pain. (MK, PC)
- Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options for anal fissures, perianal abscess, thrombosed external hemorrhoid, rectal prolapse, and fistula in ano. (MK, PC)

**Perioperative Care**
The student shall:
- Define, describe and discuss components in a patient’s past medical history influence operative risk. (MK)
- Describe tools that may assist in perioperative risk assessment, including laboratory studies, imaging, etc. (MK, PC)
- Define, describe and discuss nutritional assessment as well as the following common nutritional and deficiency syndromes: protein-calorie malnutrition, chronic alcoholism, iron and B12 deficiencies and malabsorption syndromes. (MK)
- Discuss the components of informed consent as it applies to surgical intervention. (MK, PC, ICS)
- Accurately document a procedure note (ICS)
- Define, describe and discuss conditions that potentially can interfere with fluid and electrolyte homeostasis in the peri-operative period. (MK)
- Describe factors that may impair coagulation or increase bleeding risk. (MK, PC)
- List the conditions that must exist for a patient to be discharged following general or spinal anesthesia. (MK, PC)
- Define, describe and discuss the expected outcome of uncomplicated surgical procedures. (MK, PC)
- Define, describe and discuss the differential diagnosis for patients with postoperative fever in the first postoperative day, the first 1-3 days, and occurring after 72 hours. (MK)
- Define, describe and discuss postoperative wound complications (MK)
- Define, describe and discuss causes of dyspnea and respiratory distress in the postoperative period. (MK, PC)
- Define, describe and discuss the causes, evaluation and management of hypotension in the postoperative period. (MK, PC)
- Define, describe and discuss disorders of the alimentary tract following laparotomy. (MK)

**Scrotal pain and swelling**
The student shall:
- Generate a differential diagnosis for a patient presenting with pain or a mass in the scrotum, including means to differentiate testicular from extra-testicular origin, benign vs. malignant causes and emergent, vs. nonemergent causes. (MK, PC)
- Develop a diagnostic algorithm for the evaluation of scrotal pain/swelling. (MK, PC)
- Perform an accurate and focused physical examination of the scrotum and genitalia. (PC)
- Interpret (with consultation) a scrotal ultrasound. (PC)

**Shock**
The student shall:
- Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options for: hemorrhagic, cardiogenic, septic, neurogenic and anaphylactic shock.
• Discuss priorities and specific resuscitation goals for each form of shock, including choice of fluids, indications for transfusion, indications for invasive monitoring, and use of inotropes. (MK, PC)

**Skin and soft tissue lesions**

*The student shall:*

- Describe and discuss commonly used anesthetics, advantages and disadvantages of epinephrine combined with local anesthetics, dose ranges and toxicities.
- Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options for basal and squamous skin cancers. (MK, PC)
- Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options for malignant melanoma. (MK, PC)
- Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options for soft tissue sarcoma. (MK, PC)

**Transplantation**

*The student shall:*

- Define, describe and discuss common organs and tissues currently being transplanted, acceptable and exclusionary criteria for donation by organ system, and potential ethical issues that relate to transplantation. (MK, PC, P, SBP)
- Define, describe and discuss the mechanism of action and major side-effects of commonly prescribe immunosuppressive agents. (MK)
- Define, describe and discuss the signs, symptoms, and pathophysiology of rejection (acute and chronic). (MK)
- Discuss common infectious complications of immunosuppression, their prevention and management. (MK, PC)

**Trauma**

*The student shall:*

- Outline the and describe the ABCDE’s of trauma resuscitation(include primary and secondary survey) (MK)
- Define, describe and discuss the four stages of hemorrhagic shock. (MK)
- Describe appropriate fluid resuscitation of the trauma patient. (MK, PC)
- Discuss types, etiology and prevention of coagulopathies typically found in patients with massive hemorrhage. (MK, PC)
- Discuss how the trauma system is organized in Mississippi (SBP)
- Describe the initial evaluation, stabilization and management of patients presenting with: closed head injury, spinal injury, blunt vs. penetrating thoracic injury, blunt vs. penetrating abdominal injury, urinary injury and orthopedic injuries. (MK, PC)
- Define, describe and discuss the estimation of body surface area involved in a thermal burn, fluid resuscitation for major burns and principles of wound management. (MK, PC)
- Discuss the economic impact of traumatic injury and disability in the US. (SBP)

**Urinary complaints**

*The student shall:*

- Define, describe and discuss the signs, symptoms, pathophysiology, typical course, diagnostic evaluation and treatment options for patients presenting with hematuria (MK, PC)
TEXTBOOKS (Required):
- Blueprints Surgery 5th ed. Lippincott Williams & Wilkins (2012)
- DiGiovana:: Osteopathic Approach to Diagnosis and treatment. 3rd ed. Lippincott Williams & Wilkins
- Lawrence: Essentials of General Surgery. 5th ed. Lippincott Williams & Wilkins

Other Recommended Resources:
- Moore KL: Clinically Oriented Anatomy. 7th ed. Lippincott Williams & Wilkins

ONLINE REFERENCES:


COURSE REQUIREMENTS:

Attendance, participation, grading components, etc. are all listed in the introductory portion of this manual and apply to all OMS 3 core rotations.

Patient logs, Procedure Logs, OMT Logs:
All logs are to be completed on-line using the E-value system. They must then be printed, signed by your preceptor and returned to your rotation counselor by fax, email, mail or in person within 7 days of completion of your rotation.

OP+P Assignment:
The articles assigned to this rotation are:
1. Management of Dupuytren Contracture With Ultrasound-Guided Lidocaine Injection and Needle Aponeurotomy Coupled With Osteopathic Manipulative Treatment
2. Effect of Effects of Rib Raising on the Autonomic Nervous System: A Pilot Study Using Noninvasive Biomarkers

They are available on D2L. In order to obtain credit for an article the student must read the article and achieve a 70% on the quiz. The student may reread the article and take the test a second time if they do not successfully pass on the first attempt. Only two attempts will be allowed for each quiz.

End of Rotation Examination:

The end of rotation examination for this month is the COMAT covering Surgery. You should download the browser in advance (available at Comat.starttest.com) in order to troubleshoot any compatibility issues with your computer system. The examination will take approximately 2.5 hours to complete and may only be administered in a proctored environment. As such, it will be offered during the final 3 weekdays of your rotation, the timing to be determined by the availability of your proctor. You will be notified of the time and place for the examination by the clinical rotations office prior to the 20th of the month. Contact the clinical rotations office at 601-318-6094 if you have questions regarding this process.
Reading Assignment:

See chart below for the full details of required/suggested readings and activities. In order to fully understand required elements of general surgery and provide additional detail to answer questions that arise while on rotation, additional reading may be necessary. It is suggested that you pace yourself accordingly. Your preceptor may also assign readings/activities in addition to these listed.

### Reading Logs for General Surgery II

<table>
<thead>
<tr>
<th>Rotation day</th>
<th>Topic</th>
<th>Blueprint(s)</th>
<th>Essentials of Surgery</th>
<th>Online Resources</th>
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<tbody>
<tr>
<td>1</td>
<td>Vascular Surgery</td>
<td>Chapter 16</td>
<td>Chapter 22</td>
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<tr>
<td>2</td>
<td>Heart sounds and Heart Murmurs</td>
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<td></td>
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<td>heart murmurs # 1-3</td>
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<td>3</td>
<td>The Heart</td>
<td>Chapter 17</td>
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<td>Lung</td>
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<td>5</td>
<td>Esophagus</td>
<td>Chapter 19</td>
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<td>Neurosurgery</td>
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<td>7</td>
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<td>Chapter 20</td>
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<td>Chapter 21</td>
<td>Chapter 22</td>
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<td>Skin Cancer</td>
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<td>Burns</td>
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<td>Shock</td>
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<td>16</td>
<td>Surgical Critical Care</td>
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<td>Visceral Manipulation</td>
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<td>Treatment: Chapter 110</td>
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</tbody>
</table>

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COURSE DESCRIPTION

Introduction

This is a one month Obstetrics and Gynecology rotation designed to train students in both office and hospital settings. Students will observe or participate in the management of pregnant patients, from initial diagnosis through delivery and post-partum care. The student will encounter both routine and complicated pregnancies. Students should develop a working knowledge of what constitutes “high-risk” pregnancy. Students will also learn the diagnosis and management of commonly encounter gynecologic conditions. In addition, students should learn the basics of preventative medicine and recommended health screening examinations for female patients of all ages.

Throughout the rotation the osteopathic philosophy will be emphasized, namely that: (1) the body is a unit, the person is a unit of body, mind, and spirit; (2) the body is capable of self-regulation, self-healing, and health maintenance; (3) structure and function are reciprocally related; and (4) rational treatment is based upon an understanding of the basic principles of body unity, self-regulation, and the interrelationship of structure and function.

Osteopathic physicians strive to treat their patients as part of the medical team, they endeavor to know their patient as a whole, and they make every effort to teach their patients how to achieve optimal health. The student will develop an understanding of the body and how all the systems change throughout the cycle of life: from birth, through childhood, adolescence, adulthood, aging and death.

1. **Osteopathic Principles and Practices (OPP)**

All preceptors are expected to encourage and verify application of osteopathic principles and osteopathic preceptors are expected to encourage and evaluate appropriate use of osteopathic manipulative treatment (OMT).

*The student will:*

- Integrate Osteopathic Principles and Practices into all patient care activities.
  - Consider the patient as a whole, including mind, body and spirit during patient encounters and when formulating treatment plans
  - Include the patient’s family/support network in decision making when appropriate
Perform osteopathic structural examinations and osteopathic manipulative therapy (OMT) in the evaluation and management of patients when appropriate

Demonstrate competence in the application of OMT appropriate to obstetrics and gynecology.
  - Learn to adapt osteopathic diagnostic skills and treatments across all stages of pregnancy.
  - Recognize somatic dysfunction
  - Adapt osteopathic treatment modalities to adequately and safely treat patients in all stages of pregnancy

2. Medical Knowledge (MK)
Preceptors are expected to evaluate medical knowledge, understanding of disease process, and the student’s ability to apply cognitive skills in differential diagnosis.

The student will:
  - Apply knowledge of physiology, pathology, anatomy, microbiology, biochemistry and other basic sciences to the diagnosis and treatment of their patients.

3. Patient Care (PC)
Preceptors are expected to evaluate the student’s ability to consistently demonstrate competence in patient care, including the ability to competently take a history, perform a physical examination, assist with medical procedures, and provide appropriate follow-up care.

The student will:
  - Obtain an accurate and focused history in women of all ages
  - Obtain an accurate menstrual and pregnancy history
  - Perform an accurate, organized and appropriately thorough physical examination on women of all ages
  - Generate an accurate differential diagnosis
  - Propose appropriate diagnostic testing to narrow their differential diagnosis
  - Appropriately interpret ECG, Laboratory and radiographic studies, including pelvic ultrasonography and fetal monitoring
  - Propose an evidence-based management plan that includes pharmacologic and non-pharmacologic therapy for patients
  - Perform, assist or observe the performance of the following procedures under supervision.
    - Accurate breast examination
    - Speculum examination including obtaining cervical cultures and PAP smear
    - Bimanual examination, assessing uterine size, masses, adnexal size/masses
    - Use a Doppler to detect fetal heart tones
    - Vaginal delivery of a newborn
    - Cesarean delivery of a newborn
4. **Interpersonal and Communication Skills (ICS)**
Preceptors are expected to evaluate student competence in verbal and written communication as well as the student’s skills in oral presentation, their history and physical examination findings.

The student will:
- Demonstrate ability to effectively communicate with patients
- Demonstrate ability to identify and communicate with caregivers.
- Use medical terminology as appropriate in communicating with other health care professionals
- Avoid the use of medical terminology when communicating with patients, unless they provide explanation of these terms
- Document details of a patient encounter in a clear, concise and organized fashion
- Document procedures notes/delivery notes
- Present patients to the preceptor and other health care providers in a complete, organized and concise fashion.

5. **Professionalism (P)**
Preceptors are expected to evaluate professionalism, including respect, compassion, cultural sensitivity, accountability, attitude and responsiveness to feedback.

The student will:
- Display a nonjudgmental attitude
- Demonstrate empathy when dealing with patients as well as with members of the health care team
- Maintain patient confidentiality
- Be punctual
- Adhere to the WCUCOM dress code
- Complete assigned tasks in a timely fashion
- Accept feedback without taking personal offense
- Use feedback as a means toward personal and professional growth

6. **Practice Based Learning and Improvement (PBLI)**
Preceptors are expected to evaluate the student’s practice based learning and improvement skills—including the student’s ability to integrate evidence-based medicine into patient care.

The student will:
- Access online resources and review articles such as Up-To-Date or the Cochrane Data base to obtain information regarding the care of their patients
- Perform appropriate literature searches to obtain articles that pertain to their management of patients in the clinical setting
- Apply evidence-based medicine when diagnosing patients and/or developing their management plan
- Assess the quality of evidence they obtain from various resources.

7. **Systems-Based Practice (SBP)**
Preceptors are expected to evaluate the student’s ability to understand his/her role as a member of the health care team, the student’s understanding of local community medical resources, and the student’s understanding of providing cost effective medicine.
The student will:
- Be respectful toward all members of the healthcare team
- Provide effective and timely communication to other members of the team
- Identify barriers to optimal patient care
- Identify community resources available to enhance patient care

Competency Based Learning Objectives by Topics in Women's Health

Approach to the OB/GYN Patient:
The student shall:
- Demonstrate a comprehensive women’s medical interview, including menstrual history, obstetric history, gynecologic history, contraceptive history, sexual history, family/genetic history and social history. (PC, ICS)
- Assess risk for unintended pregnancy, STD’s cervical pathology, breast malignancy, gynecologic malignancies and domestic violence. (PC, ICS)
- Assess patient’s adherence to recommended screening measures for breast and cervical cancer. (MK)
- Describe issues of justice relating to access to obstetric-gynecologic care (P, SBP)
- Describe and discuss ethical dilemmas as they pertain to obstetrics and gynecology (P)
- Counsel patients regarding: contraception, domestic abuse/violence, prevention of STDs, immunizations, depression, tobacco and alcohol abuse. (PC, MK, ICS, SBP)
- Explain prevention guidelines, including screening procedures for diseases of the breast, cervix, colon, cardiovascular system, skin and bone(MK, ICS)

Obstetrics and the normal pregnancy
The student shall:
- Define, describe and discuss the maternal physiologic and anatomic changes associated with pregnancy (MK)
- Describe fetal and placental physiology. (MK)
- Interpret urine pregnancy tests, quantitative serum beta-HCG levels, pelvic ultrasonography (MK, PC)
- Define, describe and discuss the effect of common pre-existing medical conditions on pregnancy and conversely, the effect of pregnancy on pre-existing medical conditions. (MK)
- Counsel patients regarding history of genetic abnormalities and genetic screening options. (PC, MK, ICS, P)
- Diagnose pregnancy and determine gestational age (PC, MK)
- Identify risk factors for complications in pregnancy (MK, PC)
- Describe nutritional needs of the pregnant woman (MK)
- Describe adverse effects of drugs and of environmental exposures to the fetus at varying stages of pregnancy (MK)
- Describe non-directive counseling of women with unintended pregnancy (PC, MK, ICS, P, SBP)
- Describe assessment of the following: fetal well-being and growth, amniotic fluid, fetal lung maturity(MK, PC, SBP)
- List the signs and symptoms of true and false labor(MK)
- Perform initial assessment of the laboring patient (MK, PC)
- Describe the 3 stages of labor and recognize common abnormalities (MK)
- List pain management approaches during labor(MK)
- Describe methods of monitoring the mother and fetus during labor (MK, PC, SBP)
• Describe the steps of a vaginal delivery (MK, PC)
• List indications for operative delivery (MK)
• Define, describe and discuss techniques for assessing newborn status (MK, PC)
• Describe immediate care of the newborn (MK, PC, SBP)
• Discuss the normal maternal physiologic changes in the postpartum period (MK)
• Describe the components of normal postpartum care(MK, PC)
• Describe and discuss normal physiologic and anatomic changes of the breast during pregnancy and postpartum(MK, PC)
• Define, describe and discuss the common symptoms, signs and management of common postpartum abnormalities of the breast. (MK, PC)
• Describe resources and the approach to determining medication safety during breast feeding (MK, PC, PBLI)
• Describe common challenges in lactation and breast feeding (MK)

Obstetrics and abnormal pregnancy

The student shall:
• Develop a differential diagnosis for bleeding and abdominal pain in the first trimester (MK, PC)
• List risks for ectopic pregnancy(MK)
• Define, describe and discuss the diagnosis and management options of ectopic pregnancy (MK, PC)
• Differentiate the types (missed, complete, incomplete, threatened and septic) of spontaneous abortion (MK)
• Describe the causes of spontaneous abortion (MK)
• List the complications of spontaneous abortion (MK)
• Classify the types of hypertension in pregnancy (MK)
• Define, describe and discuss the pathophysiology, signs, symptoms, diagnosis and management of preeclampsia/eclampsia (MK, PC, SBP)
• List the maternal and fetal complications associated with preeclampsia/eclampsia. (MK)
• Define, describe and discuss the pathophysiology, diagnosis and prevention of alloimmunization. (MK, SBP)
• Describe the embryology of multifetal gestation.(MK)
• Describe the unique maternal and fetal physiologic changes associated with multifetal gestation. (MK)
• Describe potential maternal and fetal complications with multifetal gestation, (MK)
• Describe the common causes of fetal demise in each trimester (MK)
• Define, describe and discuss the signs, symptoms, and diagnostic modalities to confirm the diagnosis and etiology of fetal demise. (MK, PC, SBP)
• Describe the medical and psychosocial management of a patient diagnoses with a fetal demise (MK, PC, SBP)
• List abnormal labor patterns. (MK)
• Discuss fetal and maternal complications of abnormal labor (MK)
• List indications and contraindications for oxytocin administration (M)
• Discuss strategies for emergency management of Breech presentation, shoulder dystocia and cord prolapse. (MK, SBP)
• Define, describe and discuss the presentation, signs, symptoms, evaluation and management of patients presenting with third trimester bleeding (MK, PC)
• List the indications and potential complications of blood product transfusion. (MK)
Define, describe and discuss risk factors and causes, signs, symptoms, and initial management of preterm labor (MK, PC)
List indications and contraindications of medications used in preterm labor(MK)
Define, describe and discuss the signs, symptoms, risk factors for, and diagnostic methods to confirm premature rupture of membranes. (MK, PC)
Describe the risk and benefits of expectant management versus immediate delivery based on gestational age (MK)
Describe techniques of fetal monitoring (MK)
Interpret intrapartum electronic fetal monitoring (MK, PC)
Define, describe and discuss risk factors for, differential diagnosis of and initial management of patients with postpartum hemorrhage. (MK, PC, SBP)
Define, describe and discuss the risk factors for, common infectious organisms, sings, symptoms and initial management of postpartum infection. (MK, PC, SBP)
Identify risk factors for and differentiate between postpartum blues, depression and psychosis. Discuss treatment options for same. (MK, PC)
Define, describe and discuss the complications, evaluation and management of prolonged gestation. (MK, PC, SBP)
Define, describe and discuss the etiology, detection and management and morbidity/mortality related to macrosomia. (MK, PC, SBP)
Define, describe and discuss the etiology, detection and management and morbidity/mortality related to fetal growth restriction. (MK, PC, SBP)
Discuss common postoperative complications following caesarian section.(MK)

**Gynecology**

*The student shall:*

- Define, describe and discuss the mechanism of action and effectiveness of contraception methods. (MK)
- Counsel patients regarding the benefits, risks and use for each contraceptive method. (PC, MK, ICS)
- Describe barriers to effective contraceptive use and to the reduction of unintended pregnancy (MK, PBLI, SBP)
- Explain surgical and nonsurgical methods of pregnancy termination (MK)
- Discuss the public health impact of the legal status of abortion (SBP)
- Define, describe and discuss the signs, symptoms, differential diagnosis and steps in evaluation and management of patients with vulvovaginitis (MK, PC)
- Interpret a wet mount microscopic examination of vaginal discharge. (PC, MK)
- Describe the guidelines for screening for sexually transmitted infections and for partner notification/treatment (MK, SBP)
- Define, describe and discuss symptoms, signs, evaluation and initial management of common sexually transmitted infections(MK, PC)
- Describe the evaluation and diagnostic criteria and initial management of pelvic inflammatory disease. (MK, PC)
- Describe normal pelvic anatomy and pelvic support (MK)
- Define, describe and discuss the symptoms, signs, diagnosis and management of urinary incontinence and pelvic organ prolapse. (MK, PC)
- Define, describe and discuss the pathogenesis, signs, symptoms, diagnosis an management of endometriosis. (MK, PC)
- Define, describe and discuss the prevalence, common etiologies, signs, symptoms, evaluation and
management of chronic pelvic pain. (MK, PC)

- Compare and contrast symptoms and physical examination findings of benign and malignant conditions of the breast. (MK, PC)
- Discuss the steps in the initial evaluation of mastalgia, breast masses and nipple discharge. (MK, PC, SBP)

Reproductive endocrinology and infertility

The student shall:

- Describe changes in the hypothalamic-pituitary-ovarian axis and target organs that occur during normal puberty (MK)
- Define precocious and delayed puberty (MK)
- Define, describe and discuss the pathophysiology, etiologies, symptoms, signs evaluation and management of amenorrhea. (MK, PC)
- Define, describe and discuss the pathophysiology, etiologies, evaluation and initial management of hirsuitism and virilization. (MK, PC)
- Define, describe and discuss the normal menstrual cycle, it’s endocrinology and physiology. (MK)
- Define, describe and discuss the etiology, pathophysiology, evaluation and initial management of abnormal uterine bleeding (MK, PC)
- Define and distinguish primary and secondary dysmenorrhea.
- Describe and discuss the pathophysiology, etiologies, initial evaluation and management of dysmenorrhea. (MK, PC)
- Define menopause and describe the changes to the hypothalamic-pituitary-ovarian axis associated with perimenopause/menopause. (MK)
- Describe symptoms and signs of menopause and discuss management options. (MK, PC)
- Define infertility(MK)
- Describe the causes of male and female infertility (MK)
- Describe the initial evaluation and management of an infertile couple (MK, PC, SBP)
- List the psychosocial issues associated with infertility (MK, PC, OPP)
- Identify the criteria for making the diagnosis of PMs and PMDD. (MK)
- List treatment options for PMS and PMDD (MK, PC)

Neoplasia

The student shall:

- Define, describe and discuss the signs, symptoms, typical course, diagnosis and management of gestational trophoblastic neoplasia (MK, PC)
- List risk factors for vulvar neoplasms (MK)
- List indications for vulvar biopsy (MK)
- Describe the pathogenesis of cervical cancer (MK)
- List risk factors for cervical neoplasia and cancer( MK)
- State the guidelines for cervical cancer screening (MK, SBP)
- Describe the initial management of a patient with an abnormal PAP smear (MK, PC)
- Define, describe and discuss the prevalence, symptoms, signs, diagnosis and management of uterine leiomyomas (MK, PC)
- List risk factors for endometrial hyperplasia/cancer (MK)
- Discuss the differential diagnosis of postmenopausal bleeding. (MK, PC)
- Outline the diagnostic approach to a patient with an adnexal mass (MK,PC)
- Compare and contrast characteristics of functional cysts, benign ovarian neoplasms and ovarian cancer. (MK)
List risk factors for ovarian cancer.
Define, describe and discuss signs, symptoms and typical course of ovarian cancer (MK)
Describe the histological categories of ovarian neoplasms. (MK)

**Violence against women**

*The student shall:*
- Identify patients at increased risk for sexual assault. (M, PC)
- Describe the medical and psychosocial management of a victim of sexual assault (MK, PC, ICS, P, SBP, OPP)
- Cite prevalence and incidence of violence against women (MK)
- Demonstrate application of screening methods for domestic violence (MK, ICS, PC, SBP, P)
- Communicate available resources for victims of domestic violence including short-term safety. (MK, PC, ICS, P, SBP)

**TEXTBOOKS (Required): All are available on Vitalsource**
- Callahan, C; Blueprints Obstetrics and Gynecology, 6th ed. Lippincott Williams & Wilkins (2013)

**Other Recommended Resources on Vitalsource:**
- DiGiovanna EL: An Osteopathic Approach to Diagnosis and Treatment. 3rd ed. Lippincott Williams & Wilkins (2005)

**ONLINE RESOURCES:**


**COURSE REQUIREMENTS:**

Attendance, participation, grading components, etc. are all listed in the introductory portion of this manual and apply to all OMS 3 core rotations.

**Logs:** All logs are to be completed on-line using the E-value system. They must then be printed, signed by your preceptor and returned to your rotation counselor by fax, email, mail or in person within 7 days of completion of your rotation.
OP+P Assignment:

The articles assigned to this rotation are:
2. Osteopathic Manipulative Treatment in Pregnant Women

They are available on D2L. In order to obtain credit for an article the student must read the article and achieve a 70% on the quiz. The student may reread the article and take the test a second time if they do not successfully pass on the first attempt. Only two attempts will be allowed for each quiz.

End of Rotation Examination:

The end of rotation examination for this month is the COMAT covering OB/GYN. You should download the browser in advance (available at Comat.starttest.com) in order to troubleshoot any compatibility issues with your computer system. The examination will take approximately 2.5 hours to complete and may only be administered in a proctored environment. As such, it will be offered during the final 3 weekdays of your rotation, the timing to be determined by the availability of your proctor. You will be notified of the time and place for the examination by the clinical rotations office prior to the 20th of the month. Contact the clinical rotations office at 601-318-6094 if you have questions regarding this process.

Reading Assignment:

See chart below for the full details of required/suggested readings and activities. In order to fully understand required elements of obstetrics and gynecology and provide additional detail to answer questions that arise while on rotation, additional reading may be necessary. It is suggested that you pace yourself accordingly. Your preceptor may also assign readings/activities in addition to these listed.

Reading Schedule
Obstetrics and Gynecology/Women’s Health

<table>
<thead>
<tr>
<th>Rotation Day</th>
<th>Topic</th>
<th>Blueprints OB/GYN</th>
<th>Bates Physical Diagnosis</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pelvic Anatomy</td>
<td></td>
<td></td>
<td>View dissection videos on Learner TV; Pelvic Outlet Part 1 and Part 2 and Split Pelvis</td>
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<td></td>
<td>Vaginal Examination</td>
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<td></td>
<td></td>
<td>Pages 549-542</td>
<td>Pages 553-564</td>
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<tr>
<td>2</td>
<td>Pregnancy/Prenatal Care</td>
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<td>Chapters 1, 2, 3</td>
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<td></td>
<td>Complications of Early pregnancy</td>
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<td>3</td>
<td>Normal Labor and Delivery</td>
<td></td>
<td>Chapters 4, 5</td>
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<td></td>
<td>Antepartum hemorrhage</td>
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<td>4</td>
<td>Complications of labor(maternal and fetal)</td>
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<td>Chapters 6, 7</td>
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<td>5</td>
<td>Medical conditions complicating pregnancy</td>
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<td>Chapters 8, 9, 10</td>
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<tr>
<td>6</td>
<td>Medical conditions complicating pregnancy</td>
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<td>Chapters 11, 12</td>
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<td></td>
<td>Postpartum care</td>
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<td>7</td>
<td>Benign disorders of the genital tract</td>
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<td>Chapters 13, 14</td>
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<td>Chapter</td>
<td>Topic</td>
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<td>8</td>
<td>Endometriosis</td>
<td>Chapters 15,16</td>
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<td></td>
<td>Infections of the lower reproductive tract</td>
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<tr>
<td>9</td>
<td>Infections of upper reproductive tract</td>
<td>Chapters 17,18</td>
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<td></td>
<td>Pelvic organ prolapse</td>
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<td>10</td>
<td>Urinary incontinence</td>
<td>Chapter 19</td>
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<td>11</td>
<td>Puberty, menstrual cycle, menopause</td>
<td>Chapter 20,21</td>
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<td></td>
<td>Amenorrhea</td>
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<td>12</td>
<td>Abnormalities of the menstrual cycle</td>
<td>Chapter 22,23</td>
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<td></td>
<td>Hirsuitism/virilization</td>
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<td>13</td>
<td>Contraception</td>
<td>Chapter 24,25</td>
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<td></td>
<td>Elective Termination</td>
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<tr>
<td>14</td>
<td>Infertility and assessment</td>
<td>Chapter 26</td>
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<tr>
<td>15</td>
<td>Neoplastic disease</td>
<td>Chapter 27</td>
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<tr>
<td>16</td>
<td>Cervical neoplasia</td>
<td>Chapter 28</td>
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<td>17</td>
<td>Endometrial Cancer</td>
<td>Chapter 29</td>
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<td>18</td>
<td>Ovarian and fallopian tube tumors</td>
<td>Chapter 30</td>
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<td>19</td>
<td>Gestational trophoblastic disease</td>
<td>Chapter 31</td>
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<tr>
<td>20</td>
<td>Benign breast disease and breast cancer</td>
<td>Chapter 32</td>
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COURSE DESCRIPTION

While many students will not chose a career in psychiatry, mental health issues occur in a broad spectrum of patients and physicians in any specialty will encounter patients with an underlying psychiatric disorder. This rotation provides the student the opportunity to develop skills in eliciting a psychiatric history, creating a differential diagnosis for common presentations of psychiatric disease and becoming familiar with commonly prescribed neuropsychiatric medications.

Psychotropic medications are common in the general population. Many of these drugs have significant potential medical side effects and drug interactions. You will become familiar with these during your rotation and will encounter them in practicing regardless of your field of medicine.

It can be stressful to interact with psychiatric patients. Your experience will be much more enjoyable if you interact with your patients in a pleasant and tolerant manner. Remain professional and calm in every interaction. Be empathetic toward patients.

The Specialty of Psychiatric Medicine is inherently team-based and holistic. It incorporates the biopsychosocial model in the evaluation and care of patients. The approach parallels the osteopathic principal of the person is a unit of body, mind and spirit. It is also well known that somatic symptoms are common in psychiatric patients and this follows the osteopathic concept that structure and function are reciprocally interrelated. Keep these concepts and the additional understanding of the body’s self-healing abilities in mind during your psychiatry rotation.

1. **Osteopathic Principles and Practices (OPP)**
   All preceptors are expected to encourage and verify application of osteopathic principles and osteopathic preceptors are expected to encourage and evaluate appropriate use of osteopathic manipulative treatment (OMT).

   *The student will:*
   - Integrate Osteopathic Principles and Practices into all patient care activities.
   - Consider the patient as a whole, including mind, body and spirit during patient encounters and when formulating treatment plans
   - Include the patient’s family/support network in decision making when appropriate
- Perform osteopathic structural examinations and osteopathic manipulative therapy (OMT) in the evaluation and management of patients when appropriate
- Demonstrate competence in the application of OMT appropriate to family medicine.
  - Learn to adapt osteopathic diagnostic skills and treatments across all age groups.
  - Recognize somatic dysfunction across all age groups
  - Adapt osteopathic treatment modalities to adequately and safely treat patients in all age groups.

2. **Medical Knowledge (MK)**
   Preceptors are expected to evaluate medical knowledge, understanding of disease process, and the student’s ability to apply cognitive skills in differential diagnosis.

   *The student will:*
   - Apply knowledge of physiology, pathology, anatomy, microbiology, biochemistry and other basic sciences to the diagnosis and treatment of their patients.

3. **Patient Care (PC)**
   Preceptors are expected to evaluate the student’s ability to consistently demonstrate competence in patient care, including the ability to competently take a history, perform a physical examination, assist with medical procedures, and provide appropriate follow-up care.

   *The student will:*
   - Obtain an accurate and focused history in patients of all ages
   - Perform an accurate, organized and appropriately thorough physical examination on patients of all ages
   - Generate an accurate differential diagnosis
   - Propose appropriate diagnostic testing to narrow their differential diagnosis
   - Appropriately interpret ECG, laboratory and radiographic studies
   - Propose an evidence-based management plan that includes pharmacologic and non-pharmacologic therapy

4. **Interpersonal and Communication Skills (ICS)**
   Preceptors are expected to evaluate student competence in verbal and written communication as well as the student’s skills in oral presentation their history and physical examination findings.

   *The student will:*
   - Demonstrate ability to effectively communicate with patients of all ages.
   - Demonstrate ability to identify and communicate with caregivers.
   - Use medical terminology as appropriate in communicating with other health care professionals.
   - Avoid the use of medical terminology when communicating with patients, unless they provide explanation of these terms
   - Document details of a patient encounter in a clear, concise and organized fashion
   - Present patients to the preceptor and other health care providers in a complete, organized and concise fashion.
5. **Professionalism (P)**
Preceptors are expected to evaluate professionalism, including respect, compassion, cultural sensitivity, accountability, attitude and responsiveness to feedback.

The student will:
- Display a nonjudgmental attitude
- Demonstrate empathy when dealing with patients as well as with members of the health care team
- Maintain patient confidentiality
- Be punctual
- Adhere to the WCUCOM dress code
- Complete assigned tasks in a timely fashion
- Accept feedback without taking personal offense
- Use feedback as a means toward personal and professional growth

6. **Practice Based Learning and Improvement (PBLI)**
Preceptors are expected to evaluate the student’s practice based learning and improvement skills—including the student’s ability to integrate evidence based medicine into patient care.

The student will:
- Access online resources and review articles such as Up-To-Date or the Cochrane Data base to obtain information regarding the care of their patients
- Perform appropriate literature searches to obtain articles that pertain to their management of patients in the clinical setting
- Apply evidence-based medicine when diagnosing patients and/or developing their management plan
- Assess the quality of evidence they obtain from various resources.

7. **Systems-Based Practice (SBP)**
Preceptors are expected to evaluate the student’s ability to understand his/her role as a member of the health care team, the student’s understanding of local community medical resources, and the student’s understanding of providing cost effective medicine.

The student will:
- Be respectful toward all members of the healthcare team
- Provide effective and timely communication to other members of the team
- Identify barriers to optimal patient care
- Identify community resources available to enhance patient care

**Competency Based Learning Objectives by Topic**

**Psychiatric history, physical and mental status examination**

The student shall:
- Elicit and clearly document a complete psychiatric history, including chief complaint, history of present illness, past psychiatric history, medications, general medical history, review of systems, substance abuse history and social history. (MK, PC, ICS)
- Obtain and evaluate historical data from multiple sources when available and indicated (MK, ICS, PC)
- Elicit, describe and precisely record the components of the mental status examination, including:
general appearance/behavior, motor activity, speech, affect, mood, thought processes, thought content, perception, sensorium and cognition, judgment and insight (MK, PC, ICS)

- Use appropriate medical terminology when discussing mental status examination (MK, ICS)
- Assess psychiatric patients for the presence of general medical disorders and determine the extent to which these illnesses contribute to the patient’s psychiatric problems. (MK, PC)

**Diagnosis, Classification and Treatment Planning**

_The student shall:_

- Discuss the advantages and limitations of using a diagnostic system such as the DSM-IV (MK, SBP)
- Use the DSM-IV to identify specific signs and symptoms that compose a syndrome or disorder (MK, PBLI)
- Define, describe and discuss typical signs and symptoms of the following disorders: major depression, anxiety disorders, bipolar disorder, dementia, delirium, schizophrenia, personality disorders and substance use disorders. (MK, PC)
- Discuss the prevalence and barriers to recognition of psychiatric illnesses in general medical settings (MK, PC, SBP)

**Interviewing Skills**

_The student shall:_

- Demonstrate respect, empathy, responsiveness and concern regardless of the patient’s problems or personal characteristics (P, ICS, OPP)
- Identify his/her emotional responses to patients (P, PC, ICS)
- Identify verbal and nonverbal expressions of affect and apply this information to assessment and management of the patient (PC, ICS)
- Demonstrate sensitivity to student-patient similarities and differences in gender, ethnic background, sexual orientation, socioeconomic status, educational level, political views and personality traits. (PC, ICS, P)

**Diagnostic Testing**

_The student shall:_

- List the indications for and limitations of tests used to evaluate neurophysiologic functioning of persons with neuropsychiatric symptoms (thyroid function test, toxicologies, EEG, dexamethasone suppression test, etc.). (MK, PC)
- List psychiatric medications that require blood level monitoring (MK)

**Psychiatric emergencies**

_The student shall:_

- Identify clinical and demographic factors associated with increased risk of suicide (MK, PC)
- Identify clinical findings that might suggest a medical cause of neuropsychiatric symptoms such as visual hallucinations, confusion and altered levels of consciousness. (MK, PC)
- Define, describe and discuss the typical signs, symptoms, clinical course and treatment options of psychopharmacologic emergencies including: lithium toxicity, neuroleptic malignant syndrome, anticholinergic delirium, serotonin syndrome. (MK, PC)
- Recognize signs and symptoms of possible assaultiveness (MK, PC)
- Discuss classes, indications, and associated risks of medications used for management of acutely psychotic, agitated and combative patients (MK, PC)
- Discuss indications, precautions and proper use of physical restraints in management of the acutely agitated and combative patient (MK, PC, SBP)
- Discuss indications for psychiatric hospitalization, including presenting problem, acuity, risk of
danger to self or others, community resources and family support. (MK, PC)

- Discuss the implications of “voluntary” vs. “involuntary” commitment status and the process and role of the physician in obtaining involuntary commitment. (MK, PC, SBP)

**Delirium, Dementia, Amnestic and other Cognitive Disorders**

*The student shall:*

- Define describe and discuss the cognitive, psychological and behavioral manifestations of brain disease based upon etiology, anatomy and pathophysiology. (MK)
- Compare and contrast dementia (cortical and subcortical), delirium, and dementia syndrome of depression (MK)
- Discuss the clinical features, differential diagnosis and initial evaluation of delirium. (MK, PC)
- Define, describe and discuss the signs, symptoms, typical course and differential diagnosis of the following: Alzheimer’s disease, vascular dementia, substance induced persisting dementia, Parkinson’s disease and HIV encephalopathy. (MK, PC)
- List treatable causes of dementia. (MK)
- Employ a cognitive screening evaluations to assess and follow patients with cognitive impairment—be prepared to discuss the limitations of these instruments. (MK, PC, SBP)

**Substance Related Disorders**

*The student shall:*

- Discuss the epidemiology, clinical features, patterns of usage, course of illness and treatment of substance use disorders (MK, PC)
- Discuss the role of family, support groups, ad rehabilitation programs in the recovery of patients with substance abuse disorders (MK, PC, SBP, PBLI, OPP)
- List the questions that compose the CAGE questionnaire and discuss it’s uses and limitations as a screening tool (MK)
- Define, describe and discuss the clinical features of intoxication with and withdrawal from: cocaine, amphetamines, hallucinogens, cannabis, phencyclidine, barbiturates, opiates, caffeine, nicotine, benzodiazepines and alcohol. (MK, PC)
- Discuss difficulties and barriers experienced by health care personnel in providing empathetic, nonjudgmental care to patients with substance abuse disorders. (MK, PC, P )

**Schizophrenia and other psychotic disorders**

*The student shall:*

- Define the term psychosis (MK)
- Develop a differential diagnosis for a patient presenting with acute psychosis (MK, PC)
- Define, describe and discuss the neurobiologic, genetic, and environmental theories of etiology and pathophysiology of schizophrenia. (MK)
- Define, describe and discuss the signs, symptoms, typical course and complications of schizophrenia (MK, PC)
- Summarize the treatment of schizophrenia, including pharmacologic and psychosocial interventions (MK, PC)
- Differentiate delusional disorder, schizophreniform disorder, schizoaffective disorder, brief psychotic disorder and schizophrenia (MK)

**Mood Disorders**

*The student shall:*

- Define, describe and discuss the evidence for neurobiological, genetic, psychological and environmental etiologies of mood disorder (MK)
- Define describe and discuss epidemiologic features, prevalence rates and lifetime risk of mood disorders (MK)
- Contrast normal mood variation and bereavement form pathological mood changes that constitute depressive illness (MK, PC)
- Define describe and discuss the signs, symptoms, typical course, treatment and prognosis of major depression with and without: melancholic features, psychotic features, atypical features, catatonic features, seasonal pattern and postpartum onset. (MK, PC)
- Compare and contrast the clinical presentation of mood disorders in children, adults and the elderly. (MK, PC)
- Outline the recommended acute and maintenance treatments for dysthymia, major depression and bipolar disorder (MK, PC)
- Discuss the characteristics and techniques of nonpharmacological treatments for depression, including psychotherapy, cognitive therapy, couples therapy and phototherapy (MK, PC)

**Anxiety Disorders**

*The student shall:*
- Define, describe and discuss the neurobiological, psychological, environmental and genetic etiologic hypotheses for anxiety disorders (MK)
- Discuss the epidemiology, clinical features, course and psychiatric comorbidity of panic disorder, agoraphobia, social phobia, specific phobia, generalized anxiety disorder, posttraumatic stress disorder and obsessive compulsive disorder. (MK)
- Distinguish panic attack from panic disorder (MK, PC)
- List common medical and substance induced causes of anxiety. (MK)
- Outline the psychotherapeutic and pharmacologic treatments for anxiety disorders (MK, PC)
- Compare and contrast the presentation of anxiety disorders in children and adults. (MK)

**Somatoform and Factitious Disorders**

*The student shall:*
- Define, describe and discuss the signs, symptoms, typical course of somatization disorder, conversion disorder, pain disorder, body dysmorphic disorder and hypochondriasis (MK)
- List psychiatric disorders that have high comorbidity with somatoform disorders (MK)
- Compare and contrast the characteristic features of factitious disorder/malingering with somatoform disorders (MK, PC)

**Dissociative and Amnestic Disorders**

*The student shall:*
- Define, describe and discuss the differential diagnosis of amnesia including psychiatric, substance-induced, and general medical conditions that may present in this fashion. (MK, PC)
- Define, describe and discuss the signs, symptoms, typical course of dissociative amnesia, dissociative fugue, depersonalization disorder and dissociative identity disorder. (MK)
- Discuss the hypothesized role of psychological trauma in the development of dissociative disorders (MK)
- Define, describe and discuss the etiology, epidemiology, clinical features, course and treatment options for dissociative identity disorder (MK, PC)

**Eating Disorders**

*The student shall:*
- Define, describe and discuss the etiology, signs, symptoms, epidemiology, course, complications and treatment of anorexia nervosa (MK, PC)
Define, describe and discuss the etiology, signs, symptoms, epidemiology, course, complications and treatment of bulimia (MK, PC)
Discuss the role of the primary care physician in the prevention and early diagnosis of eating disorders (MK, PC, SBP)
List the medical complications and indications for hospitalization in patients with eating disorders (MK, PC)

Sexual Dysfunctions and Paraphilia’s
The student shall:

- List common causes of sexual dysfunction, including general medical and substance-related etiologies. (MK)
- Define, describe and discuss the signs, symptoms, differential diagnosis and treatment of hypoactive sexual desire disorder, sexual aversion disorder, male erectile disorder/female arousal disorder, female and male orgasmic disorders, dyspareunia and veganism’s (MK)
- List and define the common paraphilias (MK)
- Discuss the prevalence, manifestations, diagnosis and treatment of gender identity disorder (MK, PC)

Sleep Disorders
The student shall:

- Describe normal sleep physiology and architecture throughout the life cycle (MK)
- Describe typical sleep disorders that accompany psychiatric and substance use disorders (MK)
- Summarize the effect of psychotropic medications on sleep (MK, PC)
- Describe sleep hygiene treatment (MK, PC)

Personality Disorders
The student shall:

- List the three descriptive groupings of personality disorders in the DSM-IV and describe the typical traits of each. (MK)
- Define, describe and discuss the neurobiological, genetic, developmental, behavioral and sociological theories of the etiology of personality disorders (MK)
- List the general medical and Axis I psychiatric disorders that may present with personality changes (MK, SBP)
- Define, describe and discuss the hierarchical levels of defense and regression under stress and the typical defense mechanisms used in various personality disorders (MK, PC)
- Discuss psychotherapeutic and pharmacologic management of personality disorders (MK, PC)

Psychopharmacology
The student shall:

- Describe and discuss the indications, mechanism of action, pharmacokinetics, common side effects, signs of toxicity and drug interactions of the benzodiazepines and sedative-hypnotics.
- Describe the consequences of abrupt cessation of benzodiazepines (MK, PC)
- List the characteristics associated with benzodiazepine abuse (MK)
- Compare and contrast buspirone and the benzodiazepines (MK)
- Describe and discuss the indications, mechanisms of action, pharmacokinetics, common or serious side effects, signs of toxicity and drug interactions of tricyclics, second generation (atypical) antidepressants, monoamine oxidase inhibitors and selective serotonin reuptake inhibitors (MK)
- List the effects of antidepressants on the ECG and cardiac conduction system. (MK)
• Describe and discuss the indications, mechanisms of action, pharmacokinetics, common or serious side effects, signs of toxicity and drug interactions of antipsychotics. (MK, PC)
• Describe the differences between high-potency, and low potency antipsychotics, including side-effect profile (MK)
• Define, describe and discuss the signs, symptoms, typical course and management of extrapyramidal side effects including dystonia, parkinsonism, akathisia, tardive dyskinesia and neuroleptic malignant syndrome (MK, PC)
• Describe and discuss the indications, mechanisms of action, pharmacokinetics, common or serious side effects, signs of toxicity and drug interactions of lithium, (MK)
• Discuss the indications, mechanisms of action, pharmacokinetics, common and serious side effects, toxicity, drug interactions and plasma level monitoring for other mood stabilizers: carbamazepine, valproic acid, and calcium channel blockers. (MK)
• Describe and discuss the indications, mechanisms of action, pharmacokinetics, common or serious side effects, signs of toxicity and drug interactions of antiparkinsonian agents (MK)
• List antidepressants and antipsychotics with a high incidence of anticholinergic side effects (MK)
• Discuss the indications, physiologic effects and side effects of electroconvulsive therapy (MK, PC).
• Discuss the medical management of a patient before, during and after ECT (MK, PC)
• Define, describe and discuss the characteristics and techniques of, indications and contraindications for the following psychotherapies: psychodynamic psychotherapy, psychoanalysis, supportive psychotherapy, cognitive and behavioral therapy, group therapies, couples and family therapy, and psychoeducational intervention. (MK, PC)
• Define, describe and discuss the characteristics and techniques of, indications and contraindications for behavioral medicine interventions (such as biofeedback, stimulus control, etc.). (MK, PC)
• Discuss techniques that can increase the likelihood of successful referral for psychotherapy (MK, PC, ICS)

**TEXTBOOKS (Required): All are available on Vitalsource**

- Murphy, M: Blueprints Psychiatry, 5th ed. Lippincott Williams & Wilkins (2012)

**Other Recommended Resources:**

- Bickley, LS: Bates’ guide to Physical Examination and History Taking. 11th ed. Lippincott Williams & Wilkins (2013)

**ONLINE REFERENCES:**

*NBOME Blueprint for the COMAT on Psychiatry: [http://www.nbome.org/docs/COMAT-Psychiatry.pdf](http://www.nbome.org/docs/COMAT-Psychiatry.pdf)*
COURSE REQUIREMENTS:

Attendance, participation, grading components, etc. are all listed in the introductory portion of this manual and apply to all OMS 3 core rotations.

Logs: All logs are to be completed on-line using the E-value system. They must then be printed, signed by your preceptor and returned to your rotation counselor by fax, email, mail or in person within 7 days of completion of your rotation.

OP+P Assignment:

The articles assigned to this rotation are:

1. Impact of Osteopathic Manipulative Treatment on Secretory Immunoglobulin A Levels in a Stressed Population
2. Depression, Somatization, and Somatic Dysfunction in Patients With Nonspecific Chronic Low Back Pain: Results From the OSTEOPATHIC Trial

They are available on D2L. In order to obtain credit for an article the student must read the article and achieve a 70% on the quiz. The student may reread the article and take the quiz a second time if they do not successfully pass on the first attempt. Only two attempts will be allowed for each quiz.

End of Rotation Examination:

The end of rotation examination for this month is the COMAT covering Psychiatry. You should download the browser in advance (available at Comat.starttest.com) in order to troubleshoot any compatibility issues with your computer system. The examination will take approximately 2.5 hours to complete and may only be administered in a proctored environment. As such, it will be offered during the final 3 weekdays of your rotation, the timing to be determined by the availability of your proctor. You will be notified of the time and place for the examination by the clinical rotations office prior to the 20th of the month. Contact the clinical rotations office at 601-318-6094 if you have questions regarding this process.

Reading Assignment:

See chart below for the full details of required/suggested readings and activities. In order to fully understand elements of mental health and provide additional detail in answering questions that arise while on rotation, additional reading may be necessary. It is suggested that you pace yourself accordingly. Your preceptor may also assign readings/activities in addition to these listed.

Reading Assignments for Mental Health Rotation

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Research online the MS state statutes re: involuntary commitment for psychiatric disorders | Chapter 18 |
COURSE DESCRIPTION

This elective rotation of 1 month in an allergy-immunology clerkship is intended to be a structured clinical experience under direct supervision. In a short time, all of allergy and immunology cannot possibly be covered. This must, therefore, be considered an introductory experience. This rotation is a time to build a foundation in clinical problem-solving and decision-making; a time to build clinical experience and acumen on a foundation of didactic information.

PURPOSE

Clinical experiences are intended to assist the student’s transition from didactic to integrated clinical evaluation and patient management. In addition to gaining specific skills, the student should also develop skill in systematic medical problem-solving and patient management abilities; establish or reinforce patterns of independent learning and self-evaluation; and improve skills in communication and medical record keeping. Under supervision, students are expected to assist in the management of acute and chronic allergic and immunologic problems. The student should also develop fundamental psychomotor skills by performing routine basic procedures under direct supervision.

LEARNING OBJECTIVES/OUTCOMES

At the completion of this rotation, the student will have:

- Demonstrate an understanding of the clinical reasoning used by a physician to proceed from the initial encounter with a patient to a diagnostic or therapeutic decision.
- Demonstrate knowledge of the common signs and symptoms encountered in the examination of patients, and of the relationships of those signs and symptoms to allergic or immunological diseases and disorders.
- Demonstrate knowledge of patient characteristics that may affect body systems in allergic or immunological diseases or disorders, such as level of growth and development, occupation, avocation, environment and ethnic background.
• Begin to demonstrate knowledge of the appropriate diagnostic modalities used to confirm or rule out tentative diagnoses, such as laboratory tests, imaging procedures and dynamic studies.
• Recognize and avoid unnecessary or potentially risky procedures.
• Obtain through an interview, a thorough and accurate medical history of any patient, regardless of age or ethnic or socioeconomic origins.
• Take into account a patient’s mental state, motivation for seeking treatment and ability to communicate.
• Employ appropriate interviewing techniques, making sure that there is full understanding between the physician and the patient.
• Perform complete and time-efficient physical examinations of patients.
• Demonstrate an ability to adapt the physical examination procedures to the patient’s age and/or condition. Include inspection, palpation, auscultation, and motion testing for systemic and musculoskeletal abnormalities.
• Correlate data from structural and systems examinations with the patient’s chief complaint, medical history, and other signs and symptoms to arrive at differential diagnoses.
• Learn to rank these diagnoses in order of their likelihood.
• Learn to order or perform cost-effective laboratory and radiologic studies, and other diagnostic procedures, in order to support or deny principal diagnoses and arrive at a definitive diagnosis.
• Assist in the clinical reasoning and decision-making processes involved in formulating a viable treatment plan.
• Demonstrate knowledge and understanding of patient factors that determine the priorities of medical treatment, such as immune competency, acute versus chronic degenerative illness, stable ambulation versus critical non-ambulation, and localized versus multisystem disease.
• Demonstrate the ability to apply Osteopathic Manipulative Concepts to this cadre of patients.
• Demonstrate knowledge of patient-monitoring procedures to assess improvement, deterioration or change of status.
• Demonstrate knowledge of the characteristics of the most commonly prescribed drugs, including pharmacokinetics, pharmacodynamics, indications for use contraindications, appropriate dosage, common side effects, drug interactions, interactions with foods, potentials for abuse, cost-effectiveness and inpatient versus outpatient use.
• Be aware of the adverse effects of drugs and drug combinations on particular patient populations, such as the elderly, children, pregnant women, nursing mothers and their infants, substance abusers, patients with allergies, and patients with chronic diseases or disorders.
• Demonstrate similar knowledge of the over-the-counter drugs that are commonly used by patients.

Reading

Students are encouraged to supplement preceptor assigned reading by reviewing the following topics in Cecil Textbook of Medicine 23rd Ed or Harrison's Principles of Internal Medicine, 17th Ed, and current clinical papers from refereed journals.
• Primary immunodeficiency diseases
• Allergic rhinitis and sinusitis
• Asthma
• Food and drug allergies
• Systemic anaphylaxis
• Insect sting allergy
• Urticaria and angioedema
• Atopic dermatitis
• HIV
• Autoimmune diseases
• Asthma
• Rheumatoid arthritis
• Systemic lupus erythematosus
• Vasculitis
• Ear, nose and throat symptoms

Reference Texts

• Rakel. Textbook of Family Medicine, 8th
• Andreoli and Carpenter's Cecil Essentials of Medicine, 8th Edition
• Nelson Essentials of Pediatrics, 6th Edition
• Foundations of Osteopathic Medicine, 3rd Edition
• Optional Reference Text
• Adkinson, N. F. (Eds) Middleton’s Allergy: Principles and Practice, 6th ed
The goal of the 2-week required anesthesiology rotation is to avail the student of an excellent clinical learning experience in a surgical subspecialty with a broad basis of practice. As a member of the anesthesia team, you will be involved in evaluating patients preoperatively, choosing types of anesthesia, administering anesthesia, monitoring and recording patient progress, and writing postoperative orders. You will develop skills in patient assessment, utilizing and knowing effects of sedatives, cardiovascular drugs, ventilatory support (being able to mask ventilate and insert various airway devices), and learning many other aspects of anesthetic management. The result will be of value to you during your senior year, internship, or residency even if for some reason you choose a specialty other than anesthesiology.

Goals & Learning Objectives

- **Preanesthetic Evaluation:** You shall have conducted at least at least 5-10 preanesthetic evaluations including review of history, physical examination, and laboratory result. You should be able to determine appropriate preanesthetic requirements in these areas. You should be able to fully evaluate the airway and assess the patient’s ASA physical status.

- **Choice of Anesthesia Technique:** You should be able to understand available anesthetic techniques for different surgeries and choose what might be the most appropriate for each patient, as well as alternatives. You should be able to demonstrate familiarity with all facets of informed consent.

- **Anesthetic administration:** Under instructor guidance, you will have:
  - Understood and will be able to describe most of the functions of the anesthetic machine and other monitors;
  - Chosen suitable alternative premedications and dosages according to the patient’s age, body habitus, underlying medical problems, and intended surgery/anesthetic;
  - Understood the pharmacology involved, and devised plans for and participated in delivery of sedatives, anesthetics, and cardiovascular drugs. You will be able to describe multiple actions of these agents;
  - Determined the need for and accomplished the following: placed appropriate monitors, mask ventilated, and inserted various airway devices;
  - Understood the necessity of and possibly administered regional anesthetics and placed invasive lines. You will be able to describe the reasons for choosing regional techniques, much of the anatomy involved, and many of the actions of local anesthetics. You will
also be able to describe many indications for and complications of invasive monitors;
  o Been able to demonstrate most principles of correct patient positioning.

- Fluid Management: You should recognize and be able to suggest correct acute fluid management and transfusion concepts and have participated in their applications.
- Postoperative Care and Anesthetic Complications: You should know what postoperative monitoring is necessary, the degree of pain management needed, the need for supplemental oxygen and delivery methods, and what laboratory studies might be required. You will also understand and be able to describe the mechanism of common postanesthetic complications and their management.
- Medications: look up any medical conditions, terms, or drugs with which you are not familiar, as self-directed learning requires a substantial degree of intellectual curiosity.

Restrictions
- Students must discuss with your attending/resident before writing any notes or orders and these must be co-signed.
- Intravenous Practice
  - If you want more practice, speak to the nurses in ASU…but you usually have to come early ~6:00 a.m.
- Operating Room Activities
  - Arrive on time, usually prior to 6:30 a.m. the morning of surgery to check for your assignment in the ready room and to preop the patient, and/or contact your preceptor (the latter only occurs on the first day or two). When in doubt, always check with your preceptor.
- Sterility
  - Always avoid sterile areas with non-sterile material. If something gets contaminated, let your team know.
- Equipment
  - I.V. usually on non-dominant arm, unless that is a problem with surgery or underlying patient disease.
  - BP usually on non-pulse oximeter, non-intravenous limb.
  - EKG leads on the eventual up-side (during surgery) of the patient’s body or lateral as needed
- Make Life Easier
  - Bring a stethoscope and pen.
  - Read about the type of anesthesia for proposed surgeries ahead of time. It shows you know something and your learning is reinforced in the operating room.
  - Try to memorize 7 or 8 commonly used intravenous anesthetic agents’ actions, concentrations and dosages as early as possible (e.g. Midazolam, Propofol, Fentanyl, Rocuronium, Cisatracurium, Ephedrine, Phenylephrine, Atropine, Glycopyrrolate, Neostigmine). Working with students who seem to know something makes it more likely that students will be allowed to perform a greater part of the anesthetic.
READING LIST

Note: There is no Vital Source book for this elective. The following is a good resource and your preceptor may have other suggestions.

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Resources available on VitalSource include:
- Nelson Essentials of Pediatrics, 6th Edition Ch. 46, 58, 59, 128
- Rakel. Textbook of Family Medicine, 8th Edition Ch. 19, 21 and pages 553-555
- Clinically Oriented Anatomy, 6th Edition for areas of regional anesthesia
- Andreoli and Carpenter's Cecil Essentials of Medicine, 8th Edition
- Foundations of Osteopathic Medicine, 3rd Edition
WILLIAM CAREY UNIVERSITY
COLLEGE OF OSTEOPATHIC MEDICINE

CARDIOVASCULAR DISEASE ROTATION SYLLABUS (OMS XXXX)
2011-2012
(8 credit hrs)

COURSE DESCRIPTION

This elective rotation of 1 month in a cardiovascular clerkship is intended to be a structured clinical experience under direct supervision. Cardiology is a rapidly growing field of medicine. New developments in the fields of prevention, epidemiology, general cardiology, interventional cardiology, electrophysiology and non-invasive imaging technologies have made adult cardiology a constantly evolving subspecialty. Trainees will be taught the fundamentals necessary for an understanding of cardiovascular disease processes and gain exposure to new developments that make cardiology exciting. It is obvious that all of Cardiology could not be taught in a one-month rotation.

OBJECTIVES

At the completion of this rotation, the student will have:

- Demonstrate an understanding of the clinical reasoning used by a physician to proceed from the initial encounter with a patient to a diagnostic or therapeutic decision.
- Demonstrate knowledge of the common signs and symptoms encountered in the examination of patients, and of the relationships of those signs and symptoms to cardiovascular diseases and disorders.
- Demonstrate knowledge of patient characteristics that may affect body systems in cardiovascular diseases or disorders, such as level of growth and development, occupation, avocation, environment and ethnic background.
- Demonstrate knowledge of the appropriate diagnostic modalities used to confirm or rule out tentative diagnoses, such as laboratory tests, imaging procedures and dynamic studies. Recognize and avoid unnecessary or potentially risky procedures.
- Obtain through an interview, a thorough and accurate medical history of any patient, regardless of age or ethnic or socioeconomic origins. Take into account a patient’s mental state, motivation for seeking treatment and ability to communicate.
- Employ appropriate interviewing techniques, making sure that there is full understanding between the physician and the patient.
- Perform complete and time-efficient physical examinations of patients. Demonstrate an ability to adapt the physical examination procedures to the patient’s age and/or condition. Include inspection, palpation, auscultation, and motion testing for systemic and musculoskeletal abnormalities.
• Correlate data from structural and systems examinations with the patient’s chief complaint, medical history, and other signs and symptoms to arrive at differential diagnoses. Rank these diagnoses in order of their likelihood.
• Order or perform cost-effective laboratory and radiologic studies, and other diagnostic procedures, in order to support or deny principal diagnoses and arrive at a definitive diagnosis.
• Describe the clinical reasoning and decision-making processes involved in formulating a viable cardiovascular treatment plan.
• Demonstrate knowledge and understanding of patient factors that determine the priorities of medical treatment, such as immune competency, acute versus chronic degenerative illness, stable ambulation versus critical non-ambulation, and localized versus multisystem disease.
• Demonstrate the ability to apply Osteopathic Manipulative Concepts to this cadre of patients.
• Demonstrate knowledge of patient-monitoring procedures to assess improvement, deterioration or change of status.
• Demonstrate knowledge of the characteristics of the most commonly prescribed drugs, including pharmacokinetics, pharmacodynamics, indications for use, contraindications, appropriate dosage, common side effects, drug interactions, interactions with foods, potentials for abuse, cost-effectiveness and inpatient versus outpatient use.
• Be aware of the adverse effects of drugs and drug combinations on particular patient populations, such as the elderly, children, pregnant women, nursing mothers and their infants, substance abusers, patients with allergies, and patients with chronic diseases or disorders.
• Demonstrate similar knowledge of the over-the-counter drugs that are commonly used by patients.

Reading

Students are encouraged to supplement preceptor assigned reading by reviewing the following topics in Cecil Textbook of Medicine 23rd Ed or Harrison's Principles of Internal Medicine, 17th Ed. and current clinical papers from refereed journals.

• Acute and chronic coronary artery disease.
• Valvular heart disease.
• Dysrhythmias.
• Systolic and diastolic dysfunction.
• Electrocardiogram interpretation.
• Cardiac stress test performance and interpretation.
• Primary and secondary prevention strategies.

Reference Texts
• Rakel. Textbook of Family Medicine, 8th
• Andreoli and Carpenter's Cecil Essentials of Medicine, 8th Edition
• Nelson Essentials of Pediatrics, 6th Edition
• Foundations of Osteopathic Medicine, 3rd Edition
WILLIAM CAREY UNIVERSITY
COLLEGE OF OSTEOPATHIC MEDICINE

DERMATOLOGY ROTATION SYLLABUS (OMS XXXX)
2011-2012
(8 credit hrs)

COURSE DESCRIPTION

The purpose of the dermatology clerkship is to educate students about essential components of dermatology that will be encompassed in all medical specialties. The student will be involved in general medical and surgical dermatology, will have the opportunity to develop skills in procedural dermatology, and will be exposed to lasers, phototherapy, and advanced biologic therapy.

Upon completions of this rotation the participant should be able to diagnose and treat the following:

**Bacterial Skin Diseases:**
- Cellulitis
- Erysipelas
- Folliculitis
- Furunculosis
- Impetigo

**Viral Skin Diseases:**
- Condyloma acuminata
- Herpes zoster
- Molluscum contagiosum
- Varicella
- Verruca vulgaris

**Parasitic Skin Diseases:**
- Pediculosis
- Scabies

**Fungal Skin Diseases:**
- Moniliasis
- Tinea capitis
- Tinea corporis
- Tinea cruris
- Tinea pedis / onychomycosis
- Tinea versicolor

**Venereal Diseases:**
- Chancroid
- Condylomata
- Gonorrhea
- Herpes
- Syphilis

**Common Dermatoses:**
- Acne rosacea
- Acne vulgaris
- Alopecia areata
- Atopic dermatitis
- Contact dermatitis
- Erythema multiforme
- Lichen planus
- Lichen simplex chronicus
- Pityriasis rosea
- Psoriasis
- Seborrheic dermatitis
- Sunburn
- Xerosis

Upon completion of this rotation the participant should be able to describe what is seen using the proper descriptive terms for primary and secondary lesions:
- Bulla
- Crust
- Erosion
- Excoriation
- Lichenification
- Macule
- Nodule
- Papule
- Plaque
- Scale
- Ulceration
- Vesicle
- Wheal

Upon completion of this rotation the participant should be able to choose the proper vehicle (i.e. solution vs. cream vs. ointment) in an appropriate strength for the anatomic area involved.
Upon completion of this rotation the participant should be able to perform the following laboratory studies:

- KOH
- Fungal culture
- Scabies Prep
- Tzank Smear
- Wood’s Light

Upon completion of this rotation the participant should be able to understand the indications and methods for the following types of procedures:

- Shave biopsy
- Punch biopsy
- Incisional biopsy
- Excisional biopsy
- Cryosurgery
- Chemocautery
- Electrocautery
- Excision of skin lesions
- Extensive skin lesion removal
- Ultraviolet light therapy
- Culture
- Scraping

Demonstrate the ability to apply Osteopathic Manipulative Concepts to this cadre of patients.

**Assigned Reading:**
At present there is no defined dermatology textbook. The student should refer to the online resources and recommendations from the preceptor.

**Reference Texts**

- Rakel. Textbook of Family Medicine, 8th
- Andreoli and Carpenter's Cecil Essentials of Medicine, 8th Edition
- Foundations of Osteopathic Medicine, 3rd Edition
EMERGENCY MEDICINE ELECTIVE ROTATION SYLLABUS (OMS XXXX)
2011-2012
(8 credit hrs)

COURSE DESCRIPTION

This is a one month elective in emergency medicine. It is a continuation of the EM I and II curriculum.

At the completion of this rotation, the student will have:

- Demonstrate a basic knowledge of the principles of emergency care and of the protocol for the initial assessment and care of patients who present with medical, surgical or traumatic emergencies.
- Recognize and know the treatment for common emergency room presentations including but not limited to:
  - Cardiac arrhythmias, trauma and arrest
  - Pulmonary diseases:
    - Asthma
    - Pneumonia
    - Pulmonary arrest
    - Pulmonary trauma
    - Pulmonary failure
  - Metabolic emergencies of an endocrine, infectious or toxic nature
  - Neurological problems:
    - Coma
    - Seizures
    - Cerebral vascular accidents
  - Trauma cases:
    - Priorities in multiple trauma
    - Penetrating or open wounds
  - Burns
  - Hyperthermia
  - Hypothermia
  - Near drowning
  - Electrical injuries
  - Bites
  - Shock
  - Childhood emergencies:
- Abuse
- Serious dehydration
- High fever
- Seizures
- Poisoning
- Asthma
- Anaphylactic shock.
- Septic shock.
- Gastrointestinal disorders:
  - Acute bleeding
  - Diarrhea
  - Abdominal pain
- Musculoskeletal injuries:
  - Strains
  - Sprains
  - Fractures
  - Dislocations
- Common skin problems:
  - Allergic reaction
  - Contact reaction
  - Communicable diseases
- Ophthalmologic diseases and trauma.

**Assigned reading:**

Reading assignments are not made for this elective. The student is strongly encouraged to refer to those assigned readings from EM I and II and to read daily from the latest edition Tintinalli’s textbook reviewing, at a minimum, those cases seen during the assigned shift.
WILLIAM CAREY UNIVERSITY
COLLEGE OF OSTEOPATHIC MEDICINE

ENDOCRINOLOGY ROTATION SYLLABUS (OMS XXXX)
2011-2012
(8 credit hrs)

COURSE DESCRIPTION

The student will be assigned to a preceptor who is a practicing physician in the specialty. The students will have the opportunity to expand their knowledge of endocrinology by actively participating in the initial evaluation, diagnosis, and management of patients with endocrine and metabolic problems under the supervision of a faculty member. Also they will participate in the care of inpatients with endocrine and metabolic disorders and patients seen in consultation.

LEARNING OBJECTIVES/OUTCOMES

At the completion of this rotation, the student will have:

- Understand and interpret laboratory studies pertaining to endocrinology.
- Demonstrate the ability to apply Osteopathic Manipulative Concepts to this cadre of patients.
- Understand Diabetes Mellitus.
- Understand Hyperuricemia.
- Understand Obesity.
- Understand Secondary Endocrinopathic Hypertension.
- Understand:
  - Goiter
  - Hyperthyroidism
  - Hypothyroidist
  - Perform endocrinologic exam and measurements.
  - Interpret abnormal laboratory function tests.
  - Understand the diagnosis of disorders of:
    - Adrenal glands
    - Menstruation
    - Pituitary gland
    - Ovary and testes
    - Parathyroid function
- Identify and treat disorders of lipid metabolism.
- Understand clinical presentation of abnormal endocrine states.
- Understand the clinical implications and procedures involved in:
- Replacement therapy for endocrine disorders
• Surgery for endocrine disorders
• Understand radioisotope methods for evaluation of endocrine function.

Reading

At present there is no defined dermatology textbook. The student should refer to the online resources and recommendations from the preceptor.

Reference Texts

• Rakel. Textbook of Family Medicine, 8th
• Andreoli and Carpenter's Cecil Essentials of Medicine, 8th Edition
• Nelson Essentials of Pediatrics, 6th Edition
• Foundations of Osteopathic Medicine, 3rd Edition
WILLIAM CAREY UNIVERSITY
COLLEGE OF OSTEOPATHIC MEDICINE

EPIDEMIOLOGY ROTATION SYLLABUS (OMS XXXX)
2011-2012
(8 credit hrs)

COURSE DESCRIPTION

This is a 1 month elective in Epidemiology and is available as a subspecialty elective in the area of Internal Medicine. The student will be assigned to a physician trainer who is a practicing physician in the specialty.

LEARNING OBJECTIVES/OUTCOMES

At the completion of this rotation, the student will have:

- Identify, evaluate, analyze, and take action with epidemiologic problems.
- Demonstrate a basic understanding of the principles and practice of Epidemiology.
- Demonstrate an understanding of the basic Epidemiologic Model (Agent-Host-Environment).
- Understand basic Epidemiologic Methods:
  - Agent-Host-Environment model
  - Formulating the hypotheses
- Analytical studies
  - Cause-effect relationships
  - Statistical associations
- Experimental studies
- Define the difference between Retrospective and Prospective Studies:
  - Case history studies
  - Cohort studies
- Describe and explain selected infectious disease case studies:
  - Occurrence
  - Incubation periods
  - Methods of spread
  - Periods of contagion
  - Clinical picture of disease process
  - Methods of control
- Describe the process of community diagnosis.
- Understand the working of community health services.
- Be aware of specific disease control programs:
  - Hospital infection control procedures
- Immunity - types and methods
- International immunity requirements

**Reading**

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**Reference Texts**

- Rakel. Textbook of Family Medicine, 8th
- Andreoli and Carpenter's Cecil Essentials of Medicine, 8th Edition
- Foundations of Osteopathic Medicine, 3rd Edition
COURSE DESCRIPTION

Family medicine III is a 1 month elective. This rotation is designed to be a continuum of the required FM I and II rotations. This rotation in Family Medicine will expand the student’s ability to integrate information obtained from the medical history, physical examination, osteopathic structural examination and appropriate diagnostic modalities into definitive diagnoses.

The practice of the specialty of Family Medicine centers on the physician’s ability to apply clinical reasoning in order to proceed from the initial encounter with a patient to a diagnostic and/or therapeutic decision. This process requires knowledge of the common signs and symptoms encountered in the examination of patients, and of the relationship of those signs to diseases and disorders. Also required is a demonstrable understanding of the neuromusculoskeletal system as an organizer of health and disease, competency in structural and palpatory examinations, and an open, responsive attitude toward the patient, as well as knowledge of patient characteristics that may affect body systems, such as level of growth and development, occupation, avocation, environment, and ethnic background. Family Medicine also requires the physician to take into account a patient’s mental state and motivation for seeking treatment.

Finally, this experience requires that the student demonstrate the ability, under the guidance of a Family Physician, to develop treatment plans for his/her patients, having considered:

- Differential diagnoses obtained through medical history and physical and structural examinations.
- Definitive diagnoses obtained through the correlation of differential diagnoses with appropriate imaging and laboratory data.
- The probability of particular treatments leading to desired outcomes.
- Possible treatment actions, reactions or interactions.
- Possibilities for improvement or deterioration of the patient.
- The need to request consultation or to refer the patient to a specialist for treatment.

LEARNING OBJECTIVES/OUTCOMES

At the completion of this rotation, the student will have:

- Demonstrate an understanding of the developmental stages of the family, the relationships that may exist among different members of the family during these stages, and the stresses that are aroused within the family as it passes from one stage to another.
• Identify those health risks and behaviors that tend to correlate with family membership, e.g. high blood pressure, smoking, use of alcohol, and eating habits.
• Understand normal growth and development as it relates to the health of children from birth through adolescence.
• Employ appropriate interviewing techniques to obtain from the patient, or from a knowledgeable family member, a thorough and accurate medical history of any patient, regardless of age or ethnic or socioeconomic origins, emphasizing past medical problems, family history, sexual history (when appropriate), substance abuse history, and behavioral disorders, and taking into account a patient’s mental state, motivation for seeking treatment and ability to communicate.
• Demonstrate an understanding of the neuromusculoskeletal systems as a reflector and organizer of health and disease. Demonstrate how structural and palpatory examinations can point out somatic dysfunctions.
• Perform complete and time-efficient physical examinations of patients. Demonstrate an ability to adapt the physical examination procedures to the patient’s age and/or condition. Include inspection, palpation, auscultation, and motion testing for systemic and musculoskeletal abnormalities.
• Learn to correlate data from structural and systems examinations with the patient’s chief complaint, medical history, and other signs and symptoms to arrive at differential diagnoses. Rank these diagnoses in order of their likelihood. Order or perform cost-effective laboratory and radiologic studies, and other diagnostic procedures, in order to support or deny principal diagnoses and arrive at a definitive diagnosis.
• Communicate effectively and develop rapport with patients and their families.
• Obtain and accurately interpret the results of throat cultures, urine specimens, other routine laboratory tests, and routine imaging of the chest or abdomen.
• Demonstrate knowledge of the altered clinical presentation of disease, the multiple medical problems and the potential interactions among different diseases and treatments in elderly patients.
• Demonstrate knowledge of patient characteristics that may affect body systems, such as level of growth and development, occupation, avocation, environment and ethnic background.
• Describe the clinical reasoning and decision-making processes involved in formulating a viable treatment plan.
• Demonstrate knowledge and understanding of patient factors that determine the priorities of medical treatment, such as immune competency, acute versus chronic degenerative illness, stable ambulation versus critical non-ambulating and localized versus multisystem disease.
• Demonstrate knowledge of the characteristics of the most commonly prescribed drugs, including pharmacokinetics, pharmacodynamics, indications for use, contraindications, appropriate dosage, common side effects, drug interactions, interactions with foods, potentials for abuse, cost-effectiveness and inpatient versus outpatient use.
• Be aware of the adverse effects of drugs and drug combinations on particular patient populations, such as the elderly, children, pregnant women, nursing mothers and their infants, substance abusers, patients with allergies, and patients with chronic diseases or disorders.

Assigned reading:

Reading assignments are not made for this elective. The student is strongly encouraged to refer to those assigned readings from FM I and II and to read daily reviewing, at a minimum, those cases seen during the assigned shift.
Reference Texts

- Rakel. Textbook of Family Medicine, 8th
- Andreoli and Carpenter's Cecil Essentials of Medicine, 8th Edition
- Foundations of Osteopathic Medicine, 3rd Edition
WILLIAM CAREY UNIVERSITY
COLLEGE OF OSTEOPATHIC MEDICINE

GASTROENTEROLOGY ROTATION SYLLABUS (OMS XXXX)
2011-2012
(8 credit hrs)

COURSE DESCRIPTION

Gastroenterology is a 1 month medicine elective core curriculum rotation in the area of Internal Medicine. The student will be assigned to a preceptor who is a practicing physician in the specialty.

LEARNING OBJECTIVES/OUTCOMES

At the completion of this rotation, the student will have:

- Diagnose and begin to learn to manage:
  - Non-ulcerative disorders of colon
  - Constipation/diarrhea
  - Anal fissure + fistula - perineal or perianal abscess
  - Proctitis, anal and rectal pain
  - Peptic ulcer disease
  - Minor hemorrhoidal complaints
  - Biliary tract disease
  - Chronic enteritis, ulcerative colitis, chronic disease
  - Diagnose hepatitis
  - Malignancy of GI tract
  - Hepatic coma
  - Pancreatitis
  - Esophageal varices
  - Gastrointestinal bleeding
  - Acute abdomen
  - Esophageal stricture
  - Postoperative alimentary complication
  - Mesenteric artery insufficiency
  - Demonstrate the ability to apply Osteopathic Manipulative Concepts to this cadre of patients.
  - Demonstrate an understanding of the procedure and implications of:
    - Bypass surgery
    - Enzyme deficiency states
    - Malabsorption studies
  - Perform gastrointestinal history and exam.
• Approach to the Patient with GI Disease
• GI Endoscopy
• Diagnostic Imaging Procedures in Gastroenterology
• Diseases of the Esophagus
  o dysphagia/odynophagia/achalasia
  o gastroesophageal reflux disease
• Acid Peptic Disease and Related Disorders
• Disorders of Absorption
• Inflammatory Bowel Disease
• Irritable Bowel Syndrome
• Diverticular Disease
• Evaluation of Liver Function
• Disorders of the Liver and the Biliary Tract
  o jaundice
  o cirrhosis and complications
  o alcoholic liver disease
  o nonalcoholic steatohepatitis
  o acute viral hepatitis
  o chronic hepatitis
  o cholangitis
  o cholestatic liver disease
  o toxic and drug-induced liver disease
• Hepatic Failure and Liver Transplantation
• Disorders of the Pancreas
  o acute and chronic pancreatitis
• Vascular Diseases of the Gastrointestinal Tract
• Gastrointestinal and Hepatobiliary Cancers

Reference Texts
• Rakel. Textbook of Family Medicine, 8th
• Andreoli and Carpenter's Cecil Essentials of Medicine, 8th Edition
• Nelson Essentials of Pediatrics, 6th Edition
• Foundations of Osteopathic Medicine, 3rd Edition
WILLIAM CAREY UNIVERSITY
COLLEGE OF OSTEOPATHIC MEDICINE

GERIATRICS ROTATION SYLLABUS (OMS XXXX)
2011-2012
(8 credit hrs)

COURSE DESCRIPTION

Geriatrics has emerged as a distinct medical specialty. Your experience with physicians who serve the geriatric patient will deepen your appreciation of the knowledge and skills that are required to be an effective geriatric physician. Your rotation in geriatrics will follow at least one other clinical rotation experience. Your skills in communications, diagnostic physical examinations and development of a differential diagnosis should be past the initial apprehension we all felt as a novice clinical medical student. You are ready for the diverse and challenging medical dilemmas that you will encounter in an aging patient population. Your greatest challenge will be transferring your didactic knowledge gained in your basic science years to the actual patient who will sit in front of you seeking your assistance. To help you with the transition, we have developed focused objectives organized around the core competencies. Review the objectives frequently to help gauge your growth in knowledge and skills. As you identify areas of weakness, use the listed resources to fill in your knowledge gaps. Work with your faculty physician to identify the elements of the objectives which you have not had the clinical opportunity to experience. Share the knowledge and clinical deficits you are feeling so your faculty physician can help identify patients that will broaden your clinical experiences.

OBJECTIVES

Osteopathic Philosophy and Osteopathic Manipulative Medicine
Osteopathic medicine provides a valuable framework for understanding the significance of the special needs of the geriatric patient. As aging modifies the physical structure of the body, it produces a resulting change in the function of the major body systems. This is very apparent in the musculoskeletal system but even more so in the nervous system with diseases that affect memory and cognitive ability. The resultant impact on quality of life for the patient and their family and friends is dramatic. Throughout this geriatric course, the skills we develop to diagnosis and treat osteopathic somatic and visceral dysfunction will be reviewed and instruction given on the modifications needed to apply these skills to the elderly patient. The role of osteopathic diagnosis and treatment modalities can be especially important in maintaining balance, strength and endurance that can improve quality of life. The recognition of the integration of mind, body and spirit also provides an osteopathic physician a frame work to understand that optimum medical care for the elderly goes beyond physical medicine and embraces mental, social and spiritual realms. The physician is one member of a team of enablers who help optimize quality of life for an individual. The effective physician also acknowledges that death is universal and should be approached with respect and dignity.
Learn to adapt osteopathic diagnostic skills to physical limitations of the elderly disabled.
Recognize somatic dysfunction within the context of normal aging physiological changes
Adapt Osteopathic treatment modalities to adequately and safely treat geriatric somatic dysfunction.
Develop an appreciation for the need to treat the entire patient, including emotional, spiritual, physical, family, caregiver and environmental components of the patient’s health.

Medical Knowledge
- Recognize the physiological changes for aging.
- Recognize the difference between normal aging and disease.
- Differentiate delirium from dementia.
- Differentiate the major forms of dementia.
- Assess and treat the major cardiovascular diseases of the elderly.
- Recognize and manage the major chronic pulmonary diseases.
- Manage the long-term issues of degenerative joint and bone diseases.
- Diagnosis and manage Type II Diabetes Mellitus
- Utilize Evidence Based Preventative Health Techniques

Patient Care
- Perform a competent Mini Mental Status Exam
- Obtain a complete History and Physical
- Demonstrate the ability to obtain the history of a dementia patient utilizing family and caregiver interviewing techniques.
- Participate in office based procedures pertinent to geriatric care.
- Pulmonary Function Testing
- EKG
- Ear lavage
- Joint arthrocentesis
- Skin biopsies and excisions
- Osteopathic Manipulations
- Demonstrate ability to perform Geriatric Depression Screening

Interpersonal and Communications Skills
- Demonstrate ability to effectively communicate with geriatric patients.
- Demonstrate ability to identify and communicate with caregivers.
- Develop ability to lead discussion on end of life issues.
- Demonstrate ability to communicate with nurses, CNA’s, and other professional members of the geriatric team.

Professionalism
- Display traits of competence, empathy and reliability.
- Display leadership traits when working with the geriatric team.
- Demonstrate respect for peers and all members of the geriatric team.

Practice Based Learning and Improvement
- Demonstrate ability to teach both peers and lay audiences.
- Display commitment to continuous quality improvement.
- Demonstrate ability to identify personal knowledge deficits.
• Demonstrate ability to locate educational resources and strengthen personal medical knowledge.

**System Based Practice**

• Verbalize the issues related to Medicare/Medicaid Financing of Geriatric healthcare.
• Describe the role of Medicare Part A, B, and D.
• Describe the ramifications of limited patient financial resources and the need to apply for Medicaid assistance.
• Understand the mechanism of Medicare Part A reimbursement to hospitals and skilled nursing facilities and its impact on access to skilled therapy.
• Describe the impact of Medicare Part A reimbursement on hospital management of patient’s length of stay.
• Describe the role and financial support that Hospice Care provides in End of Life Situations.

**Methods**

Faculty is encouraged to develop clinical rotations that expose the student to the full range of Geriatric Medicine. The methods described are divided into essential and optional categories. All students should have experiences in the essential categories. It is highly recommended that students be given opportunities in the optional categories as time and opportunity allows.

**Essential Experiences**

• Outpatient clinical geriatric patient encounters.
• Nursing/Skilled Facility patient encounters.
• Presentations to peer and/or lay audiences on Geriatric Topics.

**Optional Experiences**

• Hospital Inpatient geriatric patient encounters.
• Clinical Geriatric Psychiatry
• Physical Therapy
• Occupational Therapy
• Physician Home Visits
• Nursing Home Health Visits
• Hospice Care Visits
• Wound Care Clinic

**Reference Texts**

• Rakel. Textbook of Family Medicine, 8th ED (Ch. 4, 16, 35, 47, 48, pp. 1143, 1145, 1148, Figure 4-2)
• Andreoli and Carpenter's Cecil Essentials of Medicine, 8th Edition (Ch. 133)
• The Medical Interview: Mastering Skills for Clinical Practice, 5th Edition (Ch. 7, 9, 11)
• Behavioral Medicine: A Guide for Clinical Practice, 3rd Edition. (Ch. 11, 22, 27)
• Bates’ Guide to Physical Examination and History Taking, Wilkins, 9th edition (Ch 20, 1, 5)
• Rivera-Martinez, S., Wells, M., Capobianco, J. A retrospective study of cranial strain patterns in patients with idiopathic Parkinson’s disease. JAOA. August 2002; Vol. 102, No. 8: pp. 417-22.
WILLIAM CAREY UNIVERSITY
COLLEGE OF OSTEOPATHIC MEDICINE

HEMATOLOGY ROTATION SYLLABUS (OMS XXXX)
2011-2012
(8 credit hrs)

COURSE DESCRIPTION

This elective rotation of 1 month in a hematology-oncology clerkship is intended to be a structured clinical experience under direct supervision. In a short time, all of hematology and oncology cannot possibly be covered. This must, therefore, be considered an introductory experience. This rotation is a time to build a foundation in clinical problem-solving and decision-making; a time to build clinical experience and acumen on a foundation of didactic information. A post-rotation examination is not required. Hematology is available as a subspecialty elective in the area of Internal Medicine.

LEARNING OBJECTIVES/OUTCOMES

At the completion of this rotation, the students should be able to define, describe, and discuss:

- The significant attributes of a symptom, including: location and radiation, intensity, quality, temporal sequence (onset, duration, frequency), alleviating factors, aggravating factors, setting, associated symptoms, functional impairment, and patient’s interpretation of symptom.
- The four methods of physical examination (inspection, palpation, percussion, and auscultation), including where and when to use them, their purposes, and the findings they elicit.
- The physiologic mechanisms that explain key findings in the history and physical exam.
- The diagnostic value of the history and physical examination.
- Interpret specific diagnostic tests and procedures that are ordered to evaluate patients who present with common symptoms and diagnoses encountered in the practice of hematology and oncology.
- Take into account the important differential diagnostic considerations, including potential diagnostic emergencies.
- Define and describe for the tests and procedures listed:
  - Indications for testing.
  - Critical values that require immediate attention.
  - Pathophysiologic implications of abnormal results.
- Independently interpret the results of the following laboratory tests:
  - CBC with diff, red cell indicies, blood smear, reticulocyte count, serum iron, TIBC, ferritin, transferring, serum B12, red cell folate, haptoglobin, LDH, hemoglobin electrophoresis, homocysteine, methylmalonic acid, UA, electrolytes, BUN/Cr, glucose, hepatic function panel, tumor markers, PT/INR, PTT, and bone marrow
- Recording the results of laboratory tests in an organized manner, using flow sheets when
appropriate.

- Personally review medical imaging studies, blood smears, bone marrow, etc. to assess the accuracy and significance of the results.
- Using language appropriate for each patient.
- Eliciting the patient’s chief complaint as well as a complete list of the patient’s concerns.
- Obtaining a patient’s history in a logical, organized, and thorough manner, covering the history of present illness; past medical history (including usual source of and access to health care, childhood and adult illnesses, injuries, surgical procedures, obstetrical history, psychiatric problems, hospitalizations, transfusions, medications, tobacco and alcohol use, and drug allergies); preventive health measures; social, family, and occupational history; and review of systems.
- Demonstrating proper hygienic practices whenever examining a patient.
- Properly positioning the patient and self for each part of the physical examination.
- Performing a physical examination for a patient in a logical, organized, respectful, and thorough manner, giving attention to the patient’s general appearance, vital signs, and pertinent body regions.
- Adapting the scope and focus of the history and physical exam appropriately to the medical situation and the time available.

HEMATOLOGY-ONCOLOGY DISEASES AND TOPICS AND READING

Students are encouraged to supplement these basic discussions by reference to Cecil Textbook of Medicine 23rd Ed or Harrison's Principles of Internal Medicine, 17th Ed, and current clinical papers from refereed journals.

The student is responsible for reviewing these topics during the hematology elective.

- Understand anemia of uncertain etiology:
  - Microcytic anemias
  - Macrocytic anemias
  - Other anemias
- Understand problems with coagulation defects (Bleeding/Clotting Disorders) and antiplatelet, anticoagulant and fibrinolytic drugs
- Understand transfusion reactions and use of blood products.
- Demonstrate the ability to apply Osteopathic Manipulative Concepts to this cadre of patients.
- Interpret CBC and differential.
- Perform and understand the use of peripheral blood smear.
- Perform and understand routine coagulation studies, Rumple-Leede test.
- Understand disorders of intravascular coagulation.
- Understand anemias secondary to defects in red cell:
  - G-6-P-D
  - Spherocytosis
- Disorders of hemoglobin formation (i.e., sickle cell disease; thalassemia).
- Diagnose myeloproliferative disorders, including lymphoma.
- Understand dysproteinemias.
- Understand autoimmune anemia.
- Be familiar with various oncologic issues specifically:
  - Breast Health
  - Colon Cancer
  - Leukemia
- Non-Hodgkin’s Lymphoma
- Prostate Cancer
- Palliative Care

Required Assignment Texts:

Reference Texts
- Rakel. Textbook of Family Medicine, 8th
- Andreoli and Carpenter's Cecil Essentials of Medicine, 8th Edition
- Foundations of Osteopathic Medicine, 3rd Edition
WILLIAM CAREY UNIVERSITY
COLLEGE OF OSTEOPATHIC MEDICINE

INFECTIOUS DISEASE ROTATION SYLLABUS (OMS XXXX)
2011-2012
(8 credit hrs)

COURSE DESCRIPTION

This elective rotation is a 1 month experience in infectious disease structured to further develop the student's decision-making and cognitive skills. The student should also develop fundamental psychomotor skills by performing routine basic procedures in a supervised setting. Most students electing this rotation will be in their fourth year of osteopathic medical school; a few will be in their third year. In a short time, all of infectious disease cannot be covered; this must therefore be considered an introductory experience.

Physicians are responsible for directing and conducting the diagnostic evaluation of a broad range of patients, including patients seeking advice on prevention of and screening for disease and patients with acute and chronic illnesses. In a time of rapidly proliferating tests, medical students must learn how to design safe, expeditious, and cost-effective diagnostic evaluations. This requires well-developed diagnostic decision-making skills that incorporate probability-based thinking.

Specific Learning Objectives:

By completion of this rotation the students should be able to define, describe, and discuss:

- Key history and physical examination findings pertinent to the differential diagnosis.
- Information resources for determining diagnostic options for patients with common and uncommon medical problems.
- How critical pathways or practice guidelines can be used to guide diagnostic test ordering.
- Identifying problems with which a patient presents, appropriately synthesizing these into logical clinical syndromes.
- Identifying which problems are of highest priority.
- Formulating a differential diagnosis based on the findings from the history and physical examination.
- Using the differential diagnosis to help guide diagnostic test ordering and sequencing.
- Communicating the prioritized differential diagnosis to the patient and his or her family.
- Obtaining a patient’s history in a logical, organized, and thorough manner, covering the history of present illness; past medical history (including usual source of and access to health care, childhood and adult illnesses, injuries, surgical procedures, obstetrical history, psychiatric problems, hospitalizations, transfusions, medications, tobacco and alcohol use, and drug allergies); preventive health measures; social, family, and occupational history; and review of
systems.
- Incorporate the patient’s perspective into diagnostic decision making.
- Seek feedback regularly regarding diagnostic decision-making and respond appropriately
- Recognize the importance of and demonstrate a commitment to the utilization of other health care professionals in diagnostic decision making.

**At the completion of this rotation, the student will have:**

Understand and diagnose bacterial sepsis.
- Shock syndromes
- Pericarditis and Endocarditis

Understand and diagnose infections of urinary tract:
- Pyelonephritis
- Cystitis
- Urethritis

Diagnose meningitis:
- Aseptic
- Bacterial

Diagnose venereal disease:
- Warts
- Gonorrhea
- Syphilis
- Trichomoniasis
- Chlamydia
- Herpes zoster and simplex
- Other

Diagnose and learn to manage abscesses:
- Boil - Carbuncle
- Anorectal
- Fungal
- Genital organs - female
- Genital organs - male
- Nose

Diagnose pulmonary infections:
- Upper respiratory tract infection
- Laryngitis and tracheitis
- Bronchitis and bronchiolitis
- Pneumonia
- Pleurisy
Diagnose and manage parasitic infections:
- Pinworms
- Scabies-Pediculosis
- Ascariasis
- Helminthiasis

Develop a differential diagnosis of exanthemata:
- Measles
- Rubella
- Scarlet fever
- Other exanthems

Recognize signs and symptoms of and treatment alternatives for:
- Intrauterine infection.
- Approach to the Febrile Patient
- HIV Infection and Complications
- Nosocomial Infections
- Sinusitis

Assigned Reading
WILLIAM CAREY UNIVERSITY
COLLEGE OF OSTEOPATHIC MEDICINE

NEPHROLOGY CLINICAL ROTATION SYLLABUS (OMS XXXX)
2011-2012
(8 credit hrs)

COURSE DESCRIPTION

This elective rotation is a 1 month experience in nephrology structured to further develop the student's decision-making and cognitive skills. The student should also develop fundamental psychomotor skills by performing routine basic procedures in a supervised setting. Most students electing this rotation will be in their fourth year of osteopathic medical school; a few will be in their third year. In a short time, all of infectious disease cannot be covered; this must therefore be considered an introductory experience.

Nephrology is available as a subspecialty elective in the area of Internal Medicine. The intern or resident will be assigned to a physician trainer who is a practicing physician in the specialty.

LEARNING OBJECTIVES/OUTCOMES

At the completion of this rotation, the student should:

- Understand and diagnose:
  - Salt and water balance (electrolyte disturbances)
  - Acid-base disturbances (differential diagnosis of acidosis and alkalosis)
  - Urinary tract infections (acute/recurrent)
  - Proteinuria
  - Hematuria
  - Acute renal insufficiency
  - Chronic renal failure
  - Urinary system calculus
  - Evaluation of hypertensive patient
  - Diabetic glomerulosclerosis
  - SIADH
  - Diabetes insipidus

- Understand indications for and complications of:
  - Renal dialysis
  - Renal transplantation
  - Peritoneal dialysis
  - Kidney biopsy
  - IVP
  - Renal arteriography, venography, sonogram, scan
• Demonstrate the ability to apply Osteopathic Manipulative Concepts to this cadre of patients.
• Perform examination and interpretation of urinary sediment.
• Demonstrate an understanding of the indications for and interpretation of renal function tests:
  o Creatinine clearance
  o Serum BUN/Creatinine
  o Urinary Electrolytes
  o Concentrating ability
• Skills the student should be able to perform upon completion of this rotation:
  o Perform venipuncture for blood specimens or intravenous therapy.
  o Interpret a complete blood count.
  o Interpret common chemistry measurements
  o Calculate creatinine clearance (Cockcroft-Gault, abbrev. MDRD)
  o Interpret results of a urinalysis and culture
  o Interpret microalbumin/creatinine ratio
  o Interpret arterial blood gas measurements.
  o Interpret serum and urine electrolyte measurements.

Reading

Reference Texts
• Rakel. Textbook of Family Medicine, 8th
• Andreoli and Carpenter's Cecil Essentials of Medicine, 8th Edition
• Nelson Essentials of Pediatrics, 6th Edition
• Foundations of Osteopathic Medicine, 3rd Edition
WILLIAM CAREY UNIVERSITY
COLLEGE OF OSTEOPATHIC MEDICINE

NEUROLOGY CLINICAL ROTATION SYLLABUS (OMS XXXX)
2011-2012
(8 credit hrs)

COURSE DESCRIPTION

This elective rotation is a 1 month experience in neurology structured to further develop the student's decision-making and cognitive skills. The student should also develop fundamental psychomotor skills by performing routine basic procedures in a supervised setting. Most students electing this rotation will be in their fourth year of osteopathic medical school; a few will be in their third year. In a short time, all of infectious disease cannot be covered; this must therefore be considered an introductory experience.

Physicians are responsible for directing and conducting the diagnostic evaluation of a broad range of patients, including patients seeking advice on prevention of and screening for disease and patients with acute and chronic illnesses. In a time of rapidly proliferating tests, medical students must learn how to design safe, expeditious, and cost-effective diagnostic evaluations. This requires well-developed diagnostic decision-making skills that incorporate probability-based thinking.

LEARNING OBJECTIVES/OUTCOMES

At the conclusion of this core curriculum rotation, the student should be aware of psychological, physical, and social problems in the neurologic patient and integrate this information into an appropriate care plan.

- Perform and record an adequate and appropriate history and physical examination
- Perform a competent neurologic examination, including:
  - Mental status
  - Cranial nerves
  - Motor examination
  - Sensory examination
  - Coordination
  - Gait
  - Reflexes
- Formulate a differential diagnosis/problem list
- Develop and utilize diagnostic and management plans
- Lumbar procedure (LP)
- Electroencephalogram (EEG)
- Electroneuromyography (EMG, NCV)
- Computed axial tomography (CT)
• Carotid ultrasound
• Develop long term care plans, including rehabilitation plans
  o Speech therapy
  o Occupational therapy
  o Physical therapy
  o Recreational therapy
  o Nutrition
  o Terminal care plans
  o Patient education
  o Reassessment and readjustment of care plans
• Differentiate between disorders of motor dysfunction
• Differentiate between upper motor neuron (UMN) and lower motor neuron (LMN) disorders
  o Spasticity vs. rigidity
  o Spinal shock
  o Common clinical syndromes of upper motor neuron pathology
• Incoordination
  o Ataxia
  o Dysmetria
  o Titubation
• Involuntary movements
  o Resting vs. action tremors
  o Rigidity vs spasticity
  o Athetosis vs chorea
  o Asterixis
  o Dystonia
  o Hemiballismus
  o Myoclonus
  o Tics
• Discuss the clinical findings, laboratory findings, and treatment of:
  o Parkinson’s Disease
  o Essential Tremor
  o Tardive Dyskinesia
  o Huntington’s Chorea
  o Wilson’s Disease
• Differentiate central sensory disorders from peripheral sensory disorders
  o Assess visual loss
  o Monocular visual loss
  o Enlarged blind spot
  o Central scotoma
  o Bitemporal field defect
  o Homonymous hemianopia
  o Assess diplopia
• Recognize nystagmus and list common causes
• Assess pupillary abnormalities including sympathetic and parasympathetic pathways that innervate the pupil
• Differentiate and assess episodic disorders
  o Syncope
    • Diagnosis and treatment
  o Seizures
- International Classification System used for classifying common forms of seizures
- Distinguish between the following:
  - Generalized convulsive seizure
  - Generalized non-convulsive seizure (absence)
  - Partial complex seizure
  - Partial simple seizure
  - Partial seizure with secondary generalization
  - Common causes of seizures and age group relationships
  - Routine evaluation for a patient for new-onset seizures
  - Commonly used anticonvulsants with indications and side effects
  - Definition, diagnosis, and treatment of Status Asthmaticus
  - Definition and treatment of Narcolepsy and Obstructive Sleep Apnea

- Diagnosis and definition of Cerebrovascular Diseases
- Asymptomatic carotid bruit
- Transient ischemic attack (TIA)
- Ischemic infarct
- Arteriogenic embolization
- Cardiogenic embolization
- Large-vessel thrombus
- Lacunar infarct
- Parenchymal hemorrhage
- Subarachnoid hemorrhage
- Amaurosis fugax
- Intracranial hemorrhage
- Aware of the treatment options designed to prevent infarction:
  - Atrial fibrillation
  - Hemodynamically significant carotid stenosis
  - Discuss the criteria for clinical diagnosis of Multiple Sclerosis (MS)
  - Including findings suggestive of MS on clinical examination, MRI, and CSF
  - Describe the evaluation and treatment of Head Trauma
  - Assess Dizziness
  - Common causes of disequilibrium, vertigo, etc.
  - Identify clinical features used to distinguish the following:
    - Benign paroxysmal positional vertigo
    - Vestibular neuronitis
    - Meniere’s disease
    - Brainstem TIA with vertigo
    - Acoustic neuroma
  - Access auditory symptoms
    - Tinnitus
    - Findings on Rinne and Weber testing for hearing loss
  - Define and differentiate the following, including common features of each:
    - Dementia
    - Delirium
    - Amnesia
    - Confabulation
    - Hallucination
    - Aphasia
• Dysarthria
• Define and differentiate Altered Consciousness
  • Consciousness
  • Coma
  • Brain death
  • Persistent vegetative state
  • Locked-in syndrome
• Assess the comatose patient
• Diagnosis and management of increased intracranial pressure (ICP)
• Differential diagnosis and treatment of Headache and Facial Pain including:
  • Migraine headache (with and without aura)
  • Cluster headache
  • Tension-type headache
  • Trigeminal neuralgia
  • Chronic daily headache
  • Meningitis
  • Temporal arteritis
  • Intracranial hemorrhage
  • Hypertensive encephalopathy
  • Sinusitis
  • Temporomandibular joint dysfunction
  • Post-trauma/concussive syndrome
  • Systemic infections
  • Increased ICP vs. Mass
• Diagnosis and the management of Neck and Back Pain
• Diagnosis and clinical presentation of the most common Brain tumors
  • Primary brain tumor
  • Metastatic tumors
• Diagnosis and treatment of common infections
  • Bacterial/viral meningitis (acute/chronic)
  • Encephalitis
  • Brain abscess
  • Neurosyphilis
  • Lyme Disease
  • HIV
• Diagnosis and management of common Spinal Cord disorders
• Diagnosis and management of Peripheral Nervous System disorders
  • Carpal tunnel syndrome
  • Radicular pain
  • Radiculopathy
  • Mononeuropathy
  • Meralgia paresthetica
  • Polyneuropathy
  • Paresthesia
  • Fasciculation
  • Herniated nucleus pulposis (HNP)
  • Typical clinical findings in a root lesion at C-5 and L-5
  • Chronic polyneuropathy
  • Inflammatory demyelinating polyneuropathy
  • Gullian-Barre syndrome
Neurology Clerkship Requirements and Expectations

- Pre-round on your patients. Be aware of the results for all tests, consultant notes, problems overnight, etc.
- Pick-up at least two patients on call-days, one patient on a non-call admitting day. (May vary according to census)
- When on call, be available all night to work-up patients and assist your resident.
- Be well-prepared to present your patients precisely and completely during rounds, including localization, prioritized differential, and your plan.
- Pay attention to what is happening on rounds. Everything the attending says and does is for a reason.
- Participate in discussion on rounds and in conferences.
- Keep your patients informed, check-in with them at the end of the day.
- Politely excuse yourself when you have to leave for a required teaching session.
- Have your H&P in the chart on the day of admission, before morning rounds if admitted overnight.
- Have your notes complete and ready to be evaluated by your resident by approximately noon.
- Be pro-active about seeing patients and creating learning opportunities.

At present there is no defined neurology textbook. The student should refer to the online resources and recommendations from the preceptor.

Reference Texts

- Rakel. Textbook of Family Medicine, 8th
- Andreoli and Carpenter's Cecil Essentials of Medicine, 8th Edition
- Foundations of Osteopathic Medicine, 3rd Edition
Procedures

The list below represents the procedures the student should be exposed to during this rotation. It is understood that the student may not be exposed to all of those procedures listed depending on hospital, time of year, etc. Whether the student is permitted to assist and/or perform these listed will be at the discretion of their individual Preceptor and/or hospital by-laws.

For each note O = observed, A = assisted, P = performed to indicate your level of involvement. The preceptor should initial, date and indicate P= performed and passed, N= performed and needs improvement. Each Procedure will be documented at least twice. If you have more than two or see patients which do not require any procedures, please keep a record in your patient logs.

<table>
<thead>
<tr>
<th>Procedures</th>
<th>Level of participation</th>
<th>Preceptor date/ initials</th>
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</thead>
<tbody>
<tr>
<td>Lumbar puncture</td>
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<td>d.</td>
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<tr>
<td>EEG/evoked potentials</td>
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<tr>
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<tr>
<td>b.</td>
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<td>c.</td>
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<tr>
<td>EMG/NCV</td>
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<td>MRI</td>
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<td>c.</td>
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<tr>
<td>d.</td>
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</tbody>
</table>
Appendix 1: Neurological Examination

A. Mental and communication status
1. Education level
2. Level of consciousness
   a. Alert Delirium Obtunded Stupor Coma
3. Mood and psychomotor activity
4. Orientation (time, place, person, body parts, left-right, awareness of illness)
5. Calculation, spelling
6. Speech function (fluency, comprehension, repetition, naming, reading, writing)
7. Memory (immediate, short term, long term)
8. Ability to follow complex commands
9. Mini-mental status examination (MMSE) See appendix 2

B. Cranial nerve functions
1. Olfactory (aromatic smell)

2. Optic
   a. Acuity (Snellen card, corrected?)
      Example 1: acuity (near, corrected) 20/20 OU
      Notation means normal vision in both eyes
      Example 2: acuity (near, uncorrected) 20/100 OD, 20/50 OS
      In left eye, two of six numbers were missed on the 20/50 line
   b. Fundi (vessels, disc border, cup/disc ratio)

C. Visual fields
   3, 4, 6. Oculomotor, Trochlear, Abducens

   a. Pupillary reaction (light, accommodation, afferent pupillary defect)
      Example 1: PERRLA = Pupils Equal Round Reactive to Light and Accommodation
      Example 2: The right pupil is large with no response to direct or consensual light but will accommodate.
      This example is consistent with a tonic (Adie’s) pupil.

   b. Eye movements
      Example 1: EOMI = ExtraOcular Movements Intact
      Example 2: No abduction of the left eye with gaze left.
      This example is consistent with a left abducens palsy.
C. Nystagmus
   Example: A right beating nystagmus is seen in all directions of gaze.
   The direction of nystagmus is defined by its fast component.

5. Trigeminal
   a. Muscles of mastication
   b. Sensation of face (test all 3 divisions) and cornea
   c. Sensation of mucous membranes and noxious smell
   d. Jaw jerk

7. Facial
   a. Muscles of facial expression, palpebral fissures
   b. Taste anterior 2/3

8. Acoustic
   a. Cochlear (finger rub, tuning fork)
   b. Vestibular (nystagmus, past pointing)

9, 10. Glossopharyngeal, Vagus
   a. Palate rise to phonation (say “ah”) and gag
   b. Voice and articulation
   c. Taste posterior 1/3

11. Spinal accessory
   a. Sternocleidomastoid
   b. Upper trapezius

12. Hypoglossal
   a. Tongue movement
   b. Bulk

C. Motor function
   1. Strength
      a. Direct testing
         Grades: 0 No muscle contraction
         1 Trace visual or palpable movement
         2 Movement with gravity eliminated
         3 Movement against gravity but not resistance
4 Movement against resistance but can be overcome
5 Normal

b. Functional testing
i. Walking on toes and heels
ii. Deep knee bend
iii. Hopping on one foot
iv. Arm drift

2. Tone
a. Spasticity
b. Rigidity (lead-pipe, cogwheel)
c. Hypotonic or flaccid

3. Bulk

D. Reflexes

1. Deep tendon
   Grades: 0 No response
   1 Reinforcement required
   1 Diminished
   2 Normal, average
   3 Brisker than normal
   4 Nociceps
   Use “+ or -” to indicate smaller differences

2. Abdominal

3. Babinski

4. Hoffman

5. Frontal lobe (glabellar, snout, palmomental)

6. Other (cremasteric, bulbocavernous)

E. Sensory function (use sensory maps and draw pictures as needed)

1. Primary (thalamic) sensation

   a. Light touch

   b. Pain

   c. Temperature

   d. Vibration

   e. Proprioception

2. Discriminative (cortical) sensation
   a. Stereognosis
b. Graphesthesia
c. Two-point discrimination
d. Point localization
e. Extinction with double simultaneous stimulation (DSS)

3. Romberg - evaluation of balance with eyes closed and feet together reflects proprioceptive and touchfunction in the legs and feet

F. Coordination, station, and gait
   1. Balance on one foot with eyes open
   2. Walking
      a. Wide or narrow base
      b. Normal or reduced arm swing
      c. Tandem gait (heel-to-toe)
      d. Ataxia
   3. Rapid alternating movements (RAM)

4. Finger-nose-finger (FNF) and heel-knee-shin (HKS) tests

G. Abnormal movements
   1. Tremor (note predominant component)
      a. Rest (Parkinsonian)
      b. Postural
      c. Kinetic (action)
   2. Involuntary movements (dystonia, chorea, tic)

   2. Bradykinesia

H. Meningeal and mechanical signs

   1. Neck stiffness
   2. Brudzinski’s sign
   3. Kernig’s sign
   4. Straight leg raising
   5. Pressure tenderness of bone, muscle, and nerves

I. Vascular status
   1. Auscultation of head and neck
   2. Auscultation of heart
   3. Palpate extremity vesse
Appendix 2: Mini-mental status examination (MMSE)

<table>
<thead>
<tr>
<th>Maximum Score</th>
<th>Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>What is the (year) (date) (day) (month) (season)?</td>
</tr>
<tr>
<td>5</td>
<td>Where are we: (state) (county) (city) (hospital) (floor)?</td>
</tr>
</tbody>
</table>

**Registration**

<table>
<thead>
<tr>
<th>Score</th>
<th>Name 3 common objects (eg. apple, table, penny)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Take 1 second to say each. Then ask the patient to say all 3. Give 1 point for each correct answer. Repeat exercise until they have learned all 3 words.</td>
</tr>
</tbody>
</table>

**Attention and Calculation**

<table>
<thead>
<tr>
<th>Score</th>
<th>Spell &quot;world&quot; backwards. The score is the number of letters in correct order:</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>D____ L____ R____ O____ W____</td>
</tr>
</tbody>
</table>

**Recall**

<table>
<thead>
<tr>
<th>Score</th>
<th>Ask for the 3 objects repeated above. Give 1 point for each correct answer.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Language</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Score</th>
<th>Name 2 objects (eg. pencil, watch)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Repeat the following &quot;No ifs, ands, or buts.&quot;</td>
</tr>
<tr>
<td>1</td>
<td>Follow a three stage command: (eg. &quot;Hold up your right thumb, put out your left leg, and stick out your tongue.&quot;)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Score</th>
<th>Read and obey the following: CLOSE YOUR EYES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Write a sentence.</td>
</tr>
<tr>
<td>1</td>
<td>Copy the following design.</td>
</tr>
</tbody>
</table>

Total score __________ Normal 25-30

Abnormal <25
WILLIAM CAREY UNIVERSITY
COLLEGE OF OSTEOPATHIC MEDICINE

PATHOLOGY CLINICAL ROTATION SYLLABUS (OMS XXXX)
2011-2012
(8 credit hrs)

COURSE DESCRIPTION

This elective rotation is a 1 month experience in pathology structured to further develop the student's decision-making and cognitive skills. The student should also develop fundamental psychomotor skills by performing routine basic procedures in a supervised setting. Most students electing this rotation will be in their fourth year of osteopathic medical school; a few will be in their third year. In a short time, all of infectious disease cannot be covered; this must therefore be considered an introductory experience.

Students should learn how to evaluate laboratory and pathologic testing, including pitfalls related to specimen collection, handling methodologies, and the skills of individuals performing those tests. Greater knowledge about laboratory tests will not only enable testing to be used more effectively but will also allow more and better understanding of the nuances and interpretation of laboratory evaluations. Therefore, the student should: 1. understand the pathologic basis of disease for which a particular test is performed. 2. understand the limitations of such studies in order to be able to critically select proper tests suited to a particular diagnostic problem. 3. understand the principles considered in test selection for screening, diagnosis treatment and monitoring of disease. 4. be able to evaluate the timeliness and appropriateness of the testing. 5. understand the benefits and limitations of test results in arriving at specific diagnostic end points. 6. be able to interpret the following specific laboratory tests: a. Gram-stained specimens of sputum, urine and wound drainage b. dipstick urinalysis and microscopic examination of urine sediment c. Wright’s-stained peripheral blood smears for RBC, WBC and platelets d. occult blood testing of fecal samples 7. Students should also be familiar with the following: a. blood bank and serology testing b. blood chemistries c. diagnostic biopsies d. hematologic tests (e.g. blood counts, etc) e. urine testing other than dipstick and microscopic

Autopsy pathology is the practice of medicine that directs its efforts to the scientific study of the human body after death. Not all students will have the opportunity to observe an autopsy, if you do have such an opportunity it is an important to take advantage of the educational opportunity. The objective of the autopsy includes the following: the evaluation of clinical diagnoses the detection and diagnosis of unsuspected disease the study of the cause, nature, and development of disease determination of the cause of death The autopsy is a professional activity that requires the application of extensive knowledge and technical ability to the art and science of its performance and interpretation. Assisting or watching an autopsy is by far the easiest and the most interesting way to learn pathology. To get the full value from a postmortem examination, write a short note about the main features of the case.
**Required Assignment Text**
Robbins Basic Pathology, 8th Edition.

**Reference Texts**
- Andreoli and Carpenter's Cecil Essentials of Medicine, 8th Edition.
- Foundations of Osteopathic Medicine, 3rd Edition.
COURSE DESCRIPTION

This elective rotation of 1 month in a pulmonary medicine clerkship is intended to be a structured clinical experience under direct supervision. In a short time, all of pulmonary medicine cannot possibly be covered. This must, therefore, be considered an introductory experience. This rotation is a time to build foundation in clinical problem-solving and decision-making; a time to build clinical experience and acumen on a foundation of didactic information. We recognize that four weeks is insufficient time to cover a comprehensive list of objectives. Clearly, subjects addressed in any clinical rotation are dependent on the numbers of patients and kinds of disease entities presenting to a particular service. Nevertheless, certain minimum content in pulmonary medicine diseases must be addressed, either by clinical exposure or by didactic materials so that students are prepared for board examinations and other testing.

LEARNING OBJECTIVES/OUTCOMES

At the conclusion of the elective rotation, the student will:

- Understand, and learn to diagnose:
  - Chronic obstructive lung diseases
  - Chronic bronchitis
  - Asthma
  - Pneumonia (bacterial and viral)
  - Pulmonary embolism
  - Sleep apnea
- Understand and learn to diagnose:
  - Pleural effusion
  - Tuberculosis
  - Primary and metastatic neoplasms of the respiratory tract
- Demonstrate the ability to apply Osteopathic Manipulative Concepts to this cadre of patients.
- Understand and identify indications for performance, complications and interpretations of:
  - Arterial blood gases (skill in obtaining sample from various sites)
  - Pulmonary function studies
- Provide patient education in prevention of occupational and environmental lung disease.
- Understand and learn to diagnose:
  - Atelectasis
  - Bronchiectasis
- Respiratory failure in adults
- Understand and identify:
  - Pulmonary manifestations of collagen diseases
  - Allergic pulmonary disease
  - Sarciodosis
  - Pneumononconiosis
  - Complicated lung infections (emphysema, fungal, etc.)
- Understand and identify the indications for and complications of:
  - Bronchoscopy
  - Bronchography
  - Pleural biopsy
  - Needle biopsy

**Reading Assignment**

**Reference Texts**

- Rakel. Textbook of Family Medicine, 8th
- Andreoli and Carpenter's Cecil Essentials of Medicine, 8th Edition
- Foundations of Osteopathic Medicine, 3rd Edition
GOALS AND OBJECTIVES

During third year of the curriculum, students at William Carey University College of Osteopathic Medicine may complete a two-week rotation in the Radiology. Following are the clerkship's goals and objectives.

OVERARCHING GOALS

Upon completion of the Radiology Required Clerkship, students will:

- Learn basic interpretation skills in evaluating images of the chest, breast, abdomen and musculoskeletal system, and appreciate the importance of history and clinical data in the proper interpretation of imaging exams.
- Know how to use the radiographic findings to develop a differential diagnosis and outline subsequent diagnostic work-up for common medical problems such as:
  - Bone trauma
  - Chest pain
  - Shortness of breath
  - Abdominal pain
  - Masses
- Review appropriate ordering of imaging, and understand the limitations of imaging, as well as the indications, contraindications, clinical impact, and cost of imaging procedures.
- Understand the principles of nuclear medicine, including the use of clinical positron emission tomography (PET).
- Understand the basic principles of safety and radiation protection for patients and health care practitioners.

KEY CONCEPTS AND OBJECTIVES BY SECTION

Cardiothoracic Imaging Key Concepts and Objectives

Key Concepts: By attending lectures, seminars, and/or attending reading rooms, and outside reading, students will understand:

- The basics of ordering and interpretation of cardiothoracic imaging studies in acute chest pain
The anatomy and basic interpretive principles of chest radiology, including radiographs
- Tubes and lines, including placement, complications, and imaging of devices in the chest
- Imaging in diagnosis of acute chest pain caused by cardiovascular diseases
- Abnormal air collections in the thorax that cause shortness of breath; how to recognize a pneumothorax
- Imaging of pneumonia, TB, and atelectasis that can cause shortness of breath and chest pain

**Learning Objectives:**
By the end of the Radiology Required Clerkship, students should be able to:
- Identify a pneumothorax on an upright chest radiograph and list several causes of this condition
- Identify a pneumothorax on a supine chest radiograph
- Identify pneumomediastinum on a chest radiograph and list several causes of this condition
- Identify and list several possible causes of collapse of the lung
- Identify lobar consolidation on a chest radiograph and CT scan and list several causes of this condition
- Differentiate complete opacification of a hemithorax as pleural effusion, lung collapse or lung consolidation/mass based on the position of the mediastinum
- Recognize the development of an enlarging pleural fluid collection on a chest radiograph of a patient with pneumonia and suggest the diagnosis of empyema and role of chest CT scanning
- Identify the findings of left heart failure on a chest radiograph
- Define, identify and describe the significance of the silhouette sign and the air bronchogram sign on a chest radiograph
- Identify a malpositioned chest tube, feeding/nasogastric tube, endotracheal tube, pacemaker leads, pulmonary artery catheter and central venous catheter on a chest radiograph, and state the desired location for each
- Identify an abnormal mediastinum on a frontal chest radiograph and discuss the diagnosis of aortic disease or injury

**Musculoskeletal Imaging Key Concepts and Objectives**

**Key Concepts:** By attending lectures, seminars, and/or attending reading rooms, and outside reading, students will understand:
- The basics of ordering and interpreting musculoskeletal imaging studies in acute musculoskeletal trauma
- Appropriate use of MR for musculoskeletal imaging in painful joints

**Learning Objectives:**
By the end of the Radiology Required Clerkship, students should be able to:
- Recognize radiographic soft tissue clues for fractures of the wrist and elbow
- Understand basic concepts of MR imaging for cartilage injury, fracture and edema
- Distinguish anterior from posterior dislocation of the hip on a pelvic radiograph
- Describe the radiographic findings seen in AVN of the hip
- Define a burst fracture of the spine and recognize it on AP and lateral films of the thoracic spine
- Describe standard views used to image the shoulder in trauma
- Identify the lines used to evaluate the cervical spine in acute trauma setting
- Understand the role of radiographs, CT, radionuclide bone scans and MRI in evaluating patients with musculoskeletal problems

**Abdominal Imaging Key Concepts and Objectives**

**Key Concepts:** By attending lectures, seminars, and/or attending reading rooms, and outside reading, students will understand:
• Appropriate imaging workup for acute abdominal pain
• Anatomy and interpretive principles in radiographs of the abdomen
• Anatomy and pathology of the abdomen imaged with CT
• Decision-making in abdominal imaging

Learning Objectives:
By the end of the Radiology Required Clerkship, students should be able to:
A. Identify the following structures on a KUB (plain film of the abdomen):
   • Psoas muscle
   • Spleen
   • Stomach
   • Colon
   • Liver
   • Small bowel
   • Bladder
   • Renal outline
   • Rectum
B. Identify the following abnormal conditions on a flat and upright film of the abdomen:
   • Small bowel obstruction
   • Appendicolith
   • Sigmoid volvulus
   • Colonic obstruction
   • Pneumoperitoneum
   • Misplaced tubes and lines
   • Splenomegaly
   • Ruptured abdominal aortic aneurysm
   • Pneumatosis of the bowel wall
   • Ileus
   • Renal calculus
C. Identify the following normal structures on a CT scan of the abdomen and pelvis:
   • Liver
   • Spleen
   • Adrenal glands
   • Pancreas
   • Kidneys
   • Superior mesenteric artery and vein
   • Splenic vein
   • Portal vein
   • Aorta
   • IVC
   • Iliac artery and vein
   • Small bowel
   • Colon
   • Duodenum
   • Stomach
   • Psoas muscle
   • Gallbladder
   • Urinary bladder
D. Identify the following abnormalities on an abdominal pelvic CT:

- Ascites
- Spleen and liver lacerations
- Ruptured aortic aneurysm
- Small bowel obstruction
- Renal calculi
- Liver metastasis
- Intrahepatic biliary dilation
- Toxic megacolon
- Intestinal perforation

E. Describe the imaging workup of abdominal pain, masses, and trauma.

F. Describe the imaging options for the evaluation of:

- Inflammatory bowel disease
- Jaundice
- Hepatic neoplasms
- Biliary disease
- Hematuria
- Urological neoplasms
- Renal failure

G. Describe the findings of ruptured abdominal aortic aneurysm on KUB and CT.

**Interventional Radiology Key Concepts and Objectives**

**Key Concepts:** By attending lectures, seminars, and/or attending reading rooms, and outside reading, students will understand:

- Principles of interventional radiology including abscess drainage and biopsies
- Types of, and indications for, the procedures performed in Interventional Radiology

**Learning Objectives:**

By the end of the Radiology Required Clerkship, to demonstrate learning the limitations and the basics of ordering and interpretation of interventional radiology procedures, the student should be able to:

- Discuss indications of procedures
- Differentiate between the various procedures performed in interventional radiology
- Recognize the benefits of interventional radiology procedures

**Pediatric Radiology Key Concepts and Objectives**

**Key Concepts:** By attending lectures, seminars, and/or attending reading rooms, and outside reading, students will understand:

- Differences and similarities between pediatric and adult procedures
- Indications for ordering imaging procedures on pediatric patients
- Special concerns in pediatric imaging regarding need for sedation and limiting radiation exposure

**Learning Objectives:**

By the end of the Radiology Required Clerkship, to demonstrate learning the limitations and the basics of ordering and interpreting pediatric radiology procedures, the student should be able to:

- Discuss indications for pediatric imaging exams
- Compare the limitations and advantages of imaging modalities as applied to pediatrics
- Begin to synthesize a systematic approach to evaluating pediatric patients of varying ages with imaging
Abdominal and Pelvic Ultrasound Key Concepts and Objectives

Key Concepts: By attending lectures, seminars, and/or attending reading rooms, and outside reading, students will understand:

- The basic physics underlying ultrasound technology
- The conventions of ultrasound image display
- Fundamental advantages and disadvantages of ultrasound versus other imaging modalities

Learning Objectives:
By the end of the Radiology Required Clerkship, to demonstrate learning the limitations and the basics of ordering and interpreting ultrasound procedures, the student should be able to:

- Discuss several common indications for abdominal and pelvic ultrasound examination
- Discuss common, abnormal sonographic findings related to gall bladder, ovarian, and obstetric pathology
- Begin to reason through the pros and cons of obtaining an ultrasound examination given specific clinical scenarios

Required reading;
To augment the clinical experience the American College of Radiology has established a “Residents and Fellows” section with a learning center containing dozens of MRI case studies for body imaging, cardiac imaging, Musculoskeletal (MSK) and Breast images. The are available at http://3s.acr.org/MRI.

Reference Texts
- Rakel. Textbook of Family Medicine, 8th
- Andreoli and Carpenter's Cecil Essentials of Medicine, 8th Edition
- Foundations of Osteopathic Medicine, 3rd Edition
- Clinically Oriented Anatomy, 6th Edition

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WILLIAM CAREY UNIVERSITY
COLLEGE OF OSTEOPATHIC MEDICINE

SPORTS MEDICINE CLINICAL ROTATION SYLLABUS (OMS XXXX)
2011-2012
(8 credit hrs)

COURSE DESCRIPTION

This elective rotation is a 1 month experience in sports medicine structured to further develop the student's decision-making and cognitive skills. The student should also develop fundamental psychomotor skills by performing routine basic procedures in a supervised setting. Most students electing this rotation will be in their fourth year of osteopathic medical school; a few will be in their third year. In a short time, all of infectious disease cannot be covered; this must therefore be considered an introductory experience.

The overall educational goal for the rotating student is gain experience in the sub specialty of sports medicine and orthopedics. The rotating student will work directly with sports medicine fellowship-trained orthopedic surgeons and primary care specialists, sports medicine physician assistants, physical therapists and athletic trainers. The effective delivery of sports medical care relies on the disciplines of orthopedic surgery, physical therapy and athletic training working together as a cohesive unit. The medical student will see this collaboration in action on a daily basis through direct experience in the sports medicine clinic, physical therapy clinic, operating room, and "on the field" experiences.

LEARNING OBJECTIVES/OUTCOMES

At the conclusion of the Sports Medicine rotation, the student will:

- Understand the proper performance of sports physicals.
- Demonstrate a familiarity with preventative measures such as conditioning routines, equipment, taping and appropriateness of returning to competition.
- Learn to quickly and appropriately assess an injury sustained in competition.
- Demonstrate an understanding of the appropriate management of injuries.
- Demonstrate knowledge of the basic sciences as applied to athletics:
  - Anatomy
  - Hematology
  - Nutrition
  - Pharmacology
  - Physiology
  - Biochemistry
- Demonstrate knowledge of personal factors that may affect the performance of athletes.
• Demonstrate knowledge of the preliminary medical preparation needed prior to athletic competition.
• Demonstrate knowledge of physical therapy techniques and modalities utilized for rehabilitation.
• Demonstrate an understanding of cardiac rehabilitation.
• Demonstrate an understanding of wellness.
• Demonstrate the ability to apply Osteopathic Manipulative Concepts to this cadre of patients.
• Demonstrate an understanding of the management of common medical problems seen in athletes.
• Obtain an accurate history, with attention to those items which are of special interest in sports.
• Perform complete and time-efficient physical examinations of patients. Demonstrate an ability to adapt the physical examination procedures to the patient’s age, condition, and particular sporting interest. Include inspection, palpation, auscultation, and motion testing for systemic and musculoskeletal abnormalities.
• Demonstrate knowledge of the appropriate diagnostic modalities used to confirm or rule out tentative diagnoses, such as laboratory tests, imaging procedures and dynamic studies. Recognize and avoid unnecessary or potentially risky procedures.

Assigned Reading:

At present there is no defined sports medicine textbook. The student should refer to the online resources and recommendations from the preceptor.

Reference Texts
• Rakel. Textbook of Family Medicine, 8th
• Andreoli and Carpenter's Cecil Essentials of Medicine, 8th Edition
• Nelson Essentials of Pediatrics, 6th Edition
• Foundations of Osteopathic Medicine, 3rd Edition
• Clinically Oriented Anatomy, 6th Edition
COURSE DESCRIPTION

In today’s cultural setting, it is becoming increasingly important for practitioners to possess the clinical knowledge, skills and behavior necessary for the management of patients adversely affected by alcohol and other drugs, and to possess an understanding of specific issues related to HIV infection and cross cultural or gender differences.

LEARNING OBJECTIVES/OUTCOMES

At the conclusion of the clinical rotations, the student will:

- Demonstrate an understanding of the current concept of a medical model for substance abuse, and challenge those preconceived attitudes which are not in keeping with current medical thought on substance abuse treatment and prevention.
- Demonstrate knowledge of how physicians contribute to the problem of substance abuse and how they might participate in the solution.
- Understand the negative attitudes frequently held by health care professionally toward patients affected by mood-altering drugs.
- Employ appropriate interviewing techniques to obtain from the patient, or from a knowledgeable family member, a thorough and accurate medical history of the substance abuse patient, including substance abuse history, and taking into account a patient’s mental state, motivation for seeking treatment and ability to communicate.
- Perform a complete and time-efficient physical examination to evaluate patients for substance abuse.
- Demonstrate an ability to adapt the physical examination procedures to the patient’s condition.
- Learn to order or perform cost-effective laboratory diagnostic procedures, in order to support or deny principal diagnoses and arrive at a definitive diagnosis.
- Identify the impact of ethnicity, gender and age on prevalence, severity and prognosis of substance abuse disorders.
- Select chemical dependency treatment in terms of comprehensiveness, efficacy, patient matching and the role of the family physician.
- Understand the process of medical detoxification.
- Demonstrate the behavioral skills that assist physicians to initially manage substance abuse problems.
• Begin to understand the theory and practice of 12-step programs.
• Identify the commonly abused illegal drugs.
• Recognize substance abuse as a family disease.
• Identify the scope of the problem and resources available within the community.
• Learn to utilize the MAST, the SMAST-13 and the CAGE questionnaires.
• Acquire more information to supplement the screening criteria.
• Learn how to cope with the patient’s denial mechanism.
WILLIAM CAREY UNIVERSITY
COLLEGE OF OSTEOPATHIC MEDICINE

UROLOGY CLINICAL ROTATION SYLLABUS (OMS XXXX)
2011-2012
(8 credit hrs)

COURSE DESCRIPTION

Urology is a 1 month rotation during which the student will be given opportunities to further develop clinical skills as described for the rotation. Elective rotations experiences are intended to further develop the student’s decision-making, cognitive skills and continue to apply didactic material in a clinical setting. Most students will be in their fourth year of osteopathic medical school; however a few will be in their third year. The student should also develop fundamental psychomotor skills by performing routine basic procedures in a supervised setting.

We recognize that four weeks is an insufficient amount of time to cover a comprehensive list of objectives in any area of practice. Clearly, subjects addressed in any clinical rotation are dependent on the numbers of patients and kinds of disease entities presenting to a particular service. Nevertheless, certain minimum content must be addressed, either by clinical exposure or by didactic materials so that students are prepared for Board examinations and other testing. Broad goals listed above are a minimum; the following learning objectives for Urology are listed below. The College depends on the supervising physician to establish more specific objectives dealing with the scope of the particular specialty and the more common acute and chronic diseases and disorders that present.

LEARNING OBJECTIVES/OUTCOMES

At the conclusion of the elective rotation, the student will:

- Have acquired the basic skills necessary to evaluate a patient presenting with problems related to the genitourinary system, including history taking, physical examination, and the recording of data.
- Have acquired the ability to develop an appropriate differential diagnosis
- have developed the skills to prepare an appropriate sequence of laboratory, radiological, and other diagnostic tests and demonstrate familiarity with their interpretation.
- Have observed and/or acquired the technical skills needed to manage a urological patient in an office, clinic or hospital setting.
- Have developed the ability to integrate basic science knowledge in a clinical setting.
- Be able to present a case, both orally and in writing, in a logical and coherent manner so that the listener or reader is able to assess the patient.
- Be familiar with the integration of osteopathic principles and practice as it relates to urological
• have developed the skills necessary to be a respectful, attentive, empathetic and a compassionate physician.
• Be aware of the medical, legal and ethical issues of a physician’s actions.
• Recognize and learn about appropriate consultation or referral for surgical intervention:
  o Undescended testes
  o Testicular tumors
  o Orchitis, epididymitis
  o Torsion of testicle
  o Scrotal abnormalities
  o Obstructive uropathy
  o Relationship of renal structures
• Diagnose and understand urinary tract infections:
  o Pyelonephritis and pyelitis
  o Cystitis and urinary tract infection
  o Prostatitis
  o Venereal infections
• Understand and manage hematuria.
• Learn about the diagnosis and medical management of urinary calculi.
• Understand the treatment of enuresis.
• Understand the surgical management of urinary calculi.
• Understand the indications for transurethral resection.
• Demonstrate the ability to apply Osteopathic Manipulative Concepts to this cadre of patients.
• Perform Catheterizations.
• Interpret the results of sperm count.
• Perform an adequate urological history and exam.

**Assigned Reading:**

Students are encouraged to purchase (or borrow) a urology hand book or reference text. The following sources have been considered helpful:

• Smith’s General Urology- Emil A. Tanagho et al.
• Clinical Manual of Urology- Philip M. Hanno et al.
• Blueprints in Urology- Stanley Zaslau et al.
• Urology Secrets- Martin Resnik et al.
• Houseofficer Urology- Michael Macfarlane
• Pocket Guide to Urology- Wieder et al

**Reference Texts**

• Rakel. Textbook of Family Medicine, 8th
• Andreoli and Carpenter's Cecil Essentials of Medicine, 8th Edition
• Nelson Essentials of Pediatrics, 6th Edition
• Foundations of Osteopathic Medicine, 3rd Edition
At the conclusion of their two-week rotation, students should have been given the opportunity to practice the following skills:

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Pt #</th>
<th>Preceptor initial/Date</th>
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<tbody>
<tr>
<td>Placement of a foley catheter</td>
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<tr>
<td>Manipulation of a cystoscope</td>
<td>1.</td>
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<tr>
<td>Digital Rectal Exam to evaluate prostate size and texture</td>
<td>1.</td>
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<tr>
<td>Scrotal and penile examination</td>
<td>1.</td>
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<tr>
<td>Interpretation of a KUB and an Intravenous Pyelogram (IVP)</td>
<td>1.</td>
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<tr>
<td>Interpretation of a “renal colic” CT scan</td>
<td>1.</td>
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</table>

At the conclusion of each 2-week urology rotation, students should able to answer the following questions:

A) Hematuria
a. What is the definition of microscopic vs. gross hematuria?
b. What is the differential diagnosis of hematuria?
c. What is the work-up for hematuria?
d. How is gross hematuria treated?

B) Benign Prostatic Hyperplasia (BPH)
a. What are “LUTS?”
b. What is the AUA symptom score?
c. What are medical therapies for BPH?
d. What are surgical therapies for BPH?

C) Urolithiasis
a. What stones are not visible on abdominal xray?
b. What are “infection” stones and what causes them?
c. What is standard medical therapy for calcium stones?
d. What are surgical options for stones?

D) Uro-Oncology
a. What is PSA and who should be screened?
b. How is prostate cancer diagnosed?
c. What is the Gleason Score?
d. What are the treatment options for prostate cancer?
e. What are the treatment options for bladder cancer?
f. What are treatment options for kidney cancer?

E) Incontinence
a. What are the different types of urinary incontinence
b. What are medical therapies for incontinence
C. What are surgical therapies for incontinence

F) Erectile Dysfunction
a. What are the causes of organic impotence?
b. What are the available non-surgical treatments for ED?
c. What are the surgical treatments for ED?
G) Pediatric Urology
a. What is the differential diagnosis for acute scrotal pain in a child?
b. What is the work-up for acute scrotal pain in a child?
c. How is testicular torsion treated?
d. What is the differential diagnosis for hydronephrosis in a neonate?
e. What is the differential diagnosis for ambiguous genitalia in a neonate?
f. What is the work-up for urinary tract infection in a child?
g.
ORTHOPEDICS CLINICAL ROTATION SYLLABUS (OMS XXXX)  
2011-2012  
(8 credit hrs)

COURSE DESCRIPTION

Orthopedics is a 1 month rotation during which the student will be given opportunities to further develop clinical skills as described for the rotation. Elective rotations experiences are intended to further develop the student’s decision-making, cognitive skills and continue to apply didactic material in a clinical setting. Most students will be in their fourth year of osteopathic medical school; however a few will be in their third year. The student should also develop fundamental psychomotor skills by performing routine basic procedures in a supervised setting.

Four weeks is an insufficient amount of time to cover a comprehensive list of objectives in any area of practice. Clearly, subjects addressed in any clerkship are dependent on the numbers of patients and kinds of disease entities presenting to a particular service. Nevertheless, certain minimum content must be addressed, either by clinical exposure or by didactic materials so that students are prepared for board examinations and other testing. Broad goals listed above are a minimum; objectives for rotations not specifically listed in these guidelines should include the Affective Objectives listed below.

Orthopedics is available as a subspecialty elective in the area of Surgery. The student will be assigned to a physician trainer who is a practicing physician in the specialty.

LEARNING OBJECTIVES/OUTCOMES

At the conclusion of the elective rotation, the student will:

- Recognize and treat common traumatic disorders
- Dislocations and subluxations:
  - Knee
  - Shoulder
  - Finger
  - Sprains and Strains:
    - Shoulder
    - Wrist
    - Knee
    - Ankle
    - Foot/Toe
    - Neck
• Simple fractures:
  o Ribs
  o Clavicle
  o Humerus
  o Radius
  o Ulna
  o Carpal, metacarpal
  o Tarsal, metatarsal
  o Phalanges
  o Pelvis

• Understand the patophysiology and complications associate with:
  o Pain in limb
  o Leg cramp
  o Myalgia
  o Backache
  o Pain in joint
  o Swelling of joint
  o Shoulder syndromes
  o Bursitis

• Understand transportation and first aid of orthopedic injuries.
• Recognize and treat common foot disorders.
• Post-immobilization treatment of fractures and rehabilitation.
• Recognize and treat common back disorders.
• Demonstrate the ability to apply Osteopathic Manipulative Concepts to this cadre of patients.
• Perform an orthopedic history and orthopedic exam.
• Interpret radiologic bone scan.
• Perform common procedures for immobilization and casting.
• Perform intra-articular injection and aspiration.
• Recognize and treat common pediatric or orthopedic problems:
  o Osteochondrosis
  o Congenital anomalies of the lower limb

Reading
• Rakel. Textbook of Family Medicine, 8th
• Andreoli and Carpenter's Cecil Essentials of Medicine, 8th Edition
• Nelson Essentials of Pediatrics, 6th Edition
• Foundations of Osteopathic Medicine, 3rd Edition
• Clinically Oriented Anatomy, 6th Edition
COURSE DESCRIPTION

Otorhinolaryngology Is A 1 Month Rotation During Which The Student Will Be Given Opportunities To Further Develop Clinical Skills As Described For The Rotation. Elective Rotations Experiences Are Intended To Further Develop The Student’s Decision-Making, Cognitive Skills And Continue To Apply Didactic Material In A Clinical Setting. Most Students Will Be In Their Fourth Year Of osteopathic medical school; however a few will be in their third year. The student should also develop fundamental psychomotor skills by performing routine basic procedures in a supervised setting.

Four weeks is an insufficient amount of time to cover a comprehensive list of objectives in any area of practice. Clearly, subjects addressed in any clerkship are dependent on the numbers of patients and kinds of disease entities presenting to a particular service. Nevertheless, certain minimum content must be addressed, either by clinical exposure or by didactic materials so that students are prepared for board examinations and other testing. Broad goals listed above are a minimum; objectives for rotations not specifically listed in these guidelines should include the Affective Objectives listed below.

Otorhinolaryngology is available as a subspecialty elective in the area of Surgery. The student will be assigned to a physician trainer who is a practicing physician in the specialty.

LEARNING OBJECTIVES/OUTCOMES

At the conclusion of the elective rotation, the student will:

- Recognize and understand the pathogenesis, diagnosis, and management relative to the otorhinolaryngologic condition.
- Establish a differential diagnosis of common illnesses presenting in an emergency setting.
- Labyrinthine disorders
- Anterior epistaxis
- Foreign body in ear
- Otitis externa
- Acute otitis media
- Chronic otitis media
• Pharyngitis
• Sinusitis
• Tonsillitis
• Hypertrophy and chronic infection of tonsils and adenoids
• Laryngitis and tracheitis
• Acute secretory otitis media
• Dizziness - vertigo
• Mastoiditis
• Allergic rhinitis
• Upper respiratory viral infections
• Ceruminosis
• Provide early care for head and facial trauma.
• Understand indications for T and A.
• Evaluate - hoarseness.
• Recognize and classify hearing disorders.
• Demonstrate the ability to apply Osteopathic Manipulative Concepts to this cadre of patients.
• Remove Cerumen.
• Perform indirect laryngoscopy.
• Perform nasal packing and cautery for anterior epistaxis.
• Remove foreign body from ear, nose and throat.
• Conduct Weber and Rinne hearing test.
• Perform a proper ENT examination and history.
• Apply osteopathic principles and treatments appropriately.
• Understand the principles of preoperative, surgical, and post-operative management. understand the general requirements of rehabilitation.
• Thyroid testing, including scans, uptakes, T3, T4 and TSH assays
• Laryngoscopy examinations
• Principles of clean and sterile techniques, including the ability to scrub, gown, and glove alone and with assistance.
• Knowledge and usage of commonly used surgical instruments.
• Simple surgical procedures, including:
  o Suturing of lacerations surgical wounds
  o Stapling of lacerations surgical wounds
  o Removal of sutures and staples
  o The use of steri strips in lacerations surgical dressings

Reading
• Rakel. Textbook of Family Medicine, 8th
- Andreoli and Carpenter's Cecil Essentials of Medicine, 8th Edition
- Foundations of Osteopathic Medicine, 3rd Edition
- Clinically Oriented Anatomy, 6th Edition

**Additional Helpful Reading Resources**