IM 655
Nephrology Clerkship

CLERKSHIP ELECTIVE ROTATION SYLLABUS

OSTEOPATHIC MEDICAL SPECIALTIES
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EFFECTIVE AUGUST 2, 2021 TO JULY 31, 2022

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At MSUCOM, we are constantly working to improve our curriculum and to meet new AOA accreditation guidelines. We need to meet the challenges of modern medicine that force us to innovate. While changes will generally be instituted at the beginning of the school year, changes may also be implemented semester to semester.

Please be mindful of the need to read your syllabi before beginning your rotations.
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INTRODUCTION AND OVERVIEW

This course is designed to provide the student with an opportunity to actively engage in patient-based, learning experiences under the guidance of a faculty member (preceptor) in collaboration, as appropriate, with residents and/or fellows.

ELECTIVE COURSE SCHEDULING

Preapproval

- Approvals from the facility where the rotation will occur and Clerkship Team (COM.Clerkship@msu.edu) is required for every selective/elective rotation.
- Confirmation of approval from the IOR is to be sent to COM.Clerkship@msu.edu for final clerkship approval and scheduling.

Required Prerequisites

- This course does not require any prerequisite courses.

Course Confirmation and Enrollment

- The student must be an active student at Michigan State University College of Osteopathic Medicine (MSUCOM).
- Student must complete five core rotations prior to any elective rotation.
- The student must receive MSUCOM confirmation and enrollment prior to beginning any elective rotation.
  - Once the student receives rotation acceptance from the host site, students must provide the elective application and host site approval to COM.Clerkship@msu.edu for MSUCOM confirmation and scheduling.
  - MSUCOM confirmation and enrollment is complete when the rotation is visible on the student’s schedule.
  - MSUCOM confirmation must occur at least 30 days in advance of the rotation.

ROTATION FORMAT

Rotations are typically two weeks, 3 credit hours or four weeks, 6 credit hours in duration. Timeframes for each rotation are decided at least 30 days prior to the beginning of the rotation.

Rotation schedules are not to be submitted until the last Friday-Sunday of the rotation. You must document your actual schedule worked. You are required to document any time off for illness, boards, etc. that caused a deviation from the schedule you were provided. All rotation days must be accounted for.

The overall performance of course participants will be evaluated through customary assessment instruments normally employed by the department for core rotations, at the discretion of the instructor of record.

GOALS AND OBJECTIVES

GOALS

1. Develop an appreciation of the practice of nephrology as related to the specialty of the preceptor.
2. Assimilate what they learn and demonstrate their understanding of patient-care through ongoing
interaction and dialogue with, as well as formative feedback from, the preceptor.
3. Demonstrate an understanding of the (seven) osteopathic core competencies (as applicable).

Educational Goals:
The nephrology rotation is intended to provide the student with hands on experience in the evaluation and treatment of various conditions related to nephrology.

1. The clinical experience will emphasize the diagnosis and management of acute and chronic renal diseases.
2. The clinical experience will emphasize evaluation of risk factors, and management of risk factors to prevent disease advancement if possible.
3. The clinical experience will include learning to perform a complete and accurate patient history and physical exam.
4. The clinical experience will include identification and indications for appropriate diagnostic studies.
5. The clinical experience will help the student identify the first line therapy for common renal disorders.

OBJECTIVES

CLINICAL EVALUATION OF KIDNEY FUNCTION
1. Define and describe the importance of the glomerular filtration rate (GFR) in the setting of normal kidney function and compromised kidney function
2. Be familiar with how to calculate the GFR using various mathematical equations
3. Describe the role of serum creatinine, creatinine clearance and blood urea nitrogen (BUN), in regards to proper kidney function
4. Explain how to interpret a dipstick urinalysis and urine microscopy
   - Recognize the pathophysiology and conditions associated with various urine casts
5. Define hematuria and review the proper work-up of hematuria
6. Be familiar with how to quantify proteinuria and the proper work up of proteinuria
7. Explain the various imaging studies used to assess kidney function
8. Review the indications, risks and benefits of a kidney biopsy

FLUIDS AND ELECTROLYTES
1. Define osmolality and be familiar with how to calculate the plasma osmolality
2. Be familiar with how to calculate the osmolal gap and explain its significance
3. Define hypernatremia and the various risk factors for hyponatremia
4. Review the approach to the patient with hyponatremia using plasma osmolality, urine osmolality, and volume status
5. Review the treatment of acute and chronic hyponatremia
6. Define hypernatremia and its associated risk factors
7. Review the approach to the patient with hypernatremia
8. Differentiate between central and nephrogenic diabetes insipidus with regard to pathophysiology, diagnosis and treatment
9. Define hypokalemia and review the mechanism, causes and proper evaluation of hypokalemia
10. Describe the clinical manifestations and treatment of hypokalemia
11. Define hyperkalemia and review the mechanism, causes and proper evaluation of hyperkalemia
12. Describe the clinical manifestations and treatment of hyperkalemia
13. Review hypophosphatemia and hyperphosphatemia with regard to its pathophysiology, causes, evaluation and proper treatment.

**ACID BASE DISORDER**
1. Review how to interpret arterial blood gases and be able to classify each condition as acidosis or alkalosis, respiratory or metabolic and acute or chronic
   - Be familiar with the expected compensation of each of these conditions
2. Review the causes, clinical manifestations and proper evaluation of metabolic acidosis
   - Be familiar with the role of the anion gap, how to calculate it and the conditions associated with a high and low anion gap
   - Be familiar with how to calculate the urine anion gap and be able to interpret its value
   - Review the causes of normal anion gap metabolic acidosis and anion gap metabolic acidosis
3. Review the causes, clinical manifestations and proper evaluation of metabolic alkalosis
   - Differentiate between saline-responsive and saline resistant metabolic alkalosis using the effective arterial blood volume and urine chloride
4. Review the causes, clinical manifestations and proper evaluation of respiratory alkalosis
   - Review the acute and chronic compensations
   - Briefly discuss the treatment of respiratory alkalosis
5. Review the causes, clinical manifestations and proper evaluation of respiratory acidosis
   - Review the criteria for acute and chronic respiratory acidosis
   - Briefly discuss the treatment of respiratory acidosis

**HYPERTENSION (HTN)**
1. Review the epidemiology and risk factors associated with HTN
2. Be familiar with the current JNC8 guidelines for normal blood pressure, prehypertension, stage 1 HTN and stage 2 HTN
3. Review the pathogenesis and management of essential HTN
4. Review the incidence, pathophysiology, risk factors and management of secondary HTN including
   - Kidney disease
   - Primary Aldosteronism
   - Renovascular HTN
   - Pheochromocytoma
5. Understand the characteristics of white coat HTN and be familiar with its management

**TUBULOINTERSTITIAL DISORDERS**
1. Review the pathophysiology, clinical manifestations, diagnosis and evaluation of the various tubulointerstitial diseases including: those caused by:
   - Immunologic
   - Infectious
   - Malignancy
   - Medications
   - Metabolic factors
   - Obstruction
2. Discuss the proper management of tubulointerstitial diseases

**GLOMERULAR DISEASE**
1. Review the pathophysiology and clinical manifestations of glomerular diseases
2. Differentiate between the nephrotic and nephritic syndrome
3. Review the conditions that cause the nephrotic syndrome with regard to the pathophysiology,
diagnosis, clinical manifestations and management
- Minimal Change disease
- Focal Segmental Glomerulosclerosis
- Membranous Nephropathy
- Secondary causes including diabetic nephropathy, amyloidosis, multiple myeloma and HIV

4. Review the conditions that cause the nephritic syndrome with regard to the pathophysiology, diagnosis, clinical manifestations and management
- IgA Nephropathy
- Membranoproliferative Glomerulonephritis
- Hepatitis C and B Virus associated kidney disease
- Poststreptococcal Glomerulonephritis
- Lupus nephritis
- Anti-Glomerular Basement Membrane Antibody Disease
- Small and Medium Vessel Vasculitis
- Thrombotic Microangiopathy

ACUTE KIDNEY INJURY
1. Describe the characteristics/criteria of acute kidney injury (AKI)
2. Discuss the clinical manifestations and proper evaluation of AKI
   - Be familiar with how to calculate the fractional excretion of sodium (FE\textsubscript{Na}) and its implication
3. Be familiar with the following classifications of AKI with respect to pathophysiology, risk factors, prevention and treatment
   - Prerenal Azotemia
     - Volume depletion
     - Hypotension
   - Intrarenal Disease
     - Tubular Necrosis
     - Acute Contrast Induced nephropathy
     - Rhabdomyolysis and pigment nephropathy
     - Acute interstitial nephritis
   - Postrenal Disease
     - Obstruction
4. Briefly review the pathophysiology, criteria and treatment of
   - Cardiorenal syndrome
   - Hepatorenal syndrome

KIDNEY STONES
1. Discuss the pathophysiology and epidemiology of kidney stones
2. Discuss the clinical manifestation and proper diagnosis of kidney stones
3. Review the risk factors and prevention of the following types of stones
   - Calcium Oxalate stones
   - Struvite stones
   - Cystine stones
   - Uric Acid stones
4. Discuss the proper management of kidney stones both in the acute and chronic setting

CHRONIC KIDNEY DISEASE
1. Define chronic kidney disease (CKD) and be familiar with its various stages
2. Review the pathophysiology and epidemiology of CKD
3. Review the screening protocols for patients at high risk of CKD
4. Explain the clinical manifestations and proper evaluation of CKD
5. Discuss the pathophysiology, risks and management of the complications of CKD including:
   o Cardiovascular
   o Anemia
   o Chronic kidney disease and mineral and bone disorders
     ▪ Renal osteodystrophy
6. Explain the role, indications, and various types of dialysis
   o Discuss the common complications associated with dialysis
7. Be familiar with the role of kidney transplantation in the patient with CKD

COMPETENCIES

1. Teaching Methods: The student is expected to function as a viable member of the supervising physician health care team. Assigned student responsibilities can include: supervised first patient contact in the office or clinic, the completion of admission history and physicals, the completion of pre-rounding progress notes on assigned patients, participation in conducting and the interpretation of diagnostic testing and clinical management.
2. Participation in Clinical Conferences and/or Structured Educational Programs: The student is expected to participate in clinical conferences and educational programs appropriate for the clerkship course including those generally associated with residency educational programs.
3. Evaluation: The student is encouraged to solicit feedback related to his/her clinical performance on a daily basis. The student should receive formative performance evaluations at the mid-point and end of the rotation that outlines faculty perceived strengths and weaknesses related to the student’s performance that includes recommendations for strengthening his/her performance as warranted.

COLLEGE PROGRAM OBJECTIVES

In addition to the above course-specific goals and learning objectives, this clerkship rotation also facilitates student progress in attaining the College Program Objectives. Please refer to the complete list provided on the MSUCOM website (https://com.msu.edu/) and in the Student Handbook.

REFERENCES

REQUIRED STUDY RESOURCES
Review of the Nephrology Modules from the Genitourinary course pack will be of value to the student. There is no assigned textbook. Reading assignments are under the purview of the preceptor.

Desire 2 Learn (D2L)

SUGGESTED STUDY RESOURCES

Recommended Texts

Harrisons Principles of Internal Medicine 20th edition (available online from MSU Libraries)
Part 2: Chapter 48 Azotemia and urinary abnormalities
https://accessmedicine-mhmedical-com.proxy2.cl.msu.edu/content.aspx?bookid=2129&sectionid=192013131
http://catalog.lib.msu.edu/record=b10450223~S39a
**Hypertension references (JNC 8):**


https://sites.jamanetwork.com/jnc8/

**REFERENCES**

Harrisons Principles of Internal Medicine 19th edition (available online from MSU Libraries)

Chapter 61 Azotemia and urinary abnormalities

Chapter 62e Atlas of urinary sediments and renal biopsies

Chapter 63 Fluid and Electrolyte disturbances

Chapter 64e Fluid and electrolyte imbalances and acid-base disturbances: case examples

Chapter 66 Acidosis and alkalosis

Chapter 298 Hypertensive vascular disease

Chapter 332e Cellular and molecular biology of the kidney

Chapter 334 Acute kidney injury
Chapter 335 Chronic kidney disease

Chapter 336 Dialysis in the treatment of renal failure

Chapter 338 Glomerular diseases

Chapter 340 Tubulointerstitial diseases of the kidney

Chapter 341 Vascular injury to the kidney

Chapter 342 Nephrolithiasis


Hypertension references (JNC 7 and JNC 8):


**ROTATION REQUIREMENTS**

<table>
<thead>
<tr>
<th>REQUIREMENT</th>
<th>SUBMISSION METHOD</th>
<th>DUE DATE (Please refer to D2L for actual due dates)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Types and Procedure Log</td>
<td>See page at the end of syllabus and upload into D2L Drop Box for the course</td>
<td>11:59 pm Last Sunday of Rotation</td>
</tr>
<tr>
<td>Clinical Shift Schedule</td>
<td>Upload to D2L Drop Box</td>
<td>Not to be submitted until the last Friday-Sunday of the rotation, and must be the schedule you worked, not what you were scheduled to work.</td>
</tr>
<tr>
<td>Attending Evaluation of Clerkship Student</td>
<td>Can be accessed via the “Attending Evaluation” link in Kobiljak online schedule. Email completed evaluation to <a href="mailto:COM.Clerkship@msu.edu">COM.Clerkship@msu.edu</a></td>
<td>Last Day of Rotation</td>
</tr>
<tr>
<td>Student Evaluation of Clerkship Rotation</td>
<td>Can be accessed and submitted via the “Student Evaluation” link in Kobiljak online schedule.</td>
<td>Last Day of Rotation</td>
</tr>
</tbody>
</table>

The student who fails to turn in required paperwork, who has a verifiable reason why they failed to do so, will be allowed a 2-week grace period or more depending on the circumstances. Failure to meet this two week deadline will result in an N grade.
**ROTATION EVALUATIONS**

**Attending Evaluation of Student**

Students are responsible for assuring that his/her clinical supervisor receives the appropriate evaluation form. Forms can be accessed via the “Attending Evaluation” link in the student’s Kobiljak online Clerkship schedule.

Students should actively seek feedback on his/her performance throughout the course of the clinical rotation. Students should also sit down and discuss the formal evaluation with the clinical supervisor.

Students should keep a copy of the evaluation and leave the original with the Medical Education Office at the clinical training site where that office will review, sign, and forward the completed form to the COM Clerkship Team. Any evidence of tampering or modification while in the possession of the student will be considered “unprofessional behavior” and will be referred to the MSUCOM Spartan Committee Clearinghouse for resolution, per MSUCOM’s Common Ground Framework for Professional Conduct or to the Committee on Student Evaluation (COSE).

Grades are held until all rotation requirements, including evaluation forms, are received. Be sure you are using the correct form.

**Student Evaluation of Clerkship Rotation**

Students will submit their rotation evaluations electronically at the conclusion of every rotation by accessing their online evaluation system at:

http://hit-filemakerwb.hc.msu.edu/Clerkship/login_student.html

**Unsatisfactory Clinical Performance**

The Instructor of Record and/or the Assistant Dean for Clerkship Education will review/investigate a student’s performance on a rotation when a concern is raised by the supervisor(s), and when the Attending Evaluation of Clerkship Student contains any below expectation marks within the professionalism area, any unsatisfactory written comments, or a total of two or more below average marks on the evaluation.

Professionalism concerns, as well as accolades, will also be referred to the MSUCOM Spartan Committee Clearinghouse for resolution, per MSUCOM’s Common Ground Framework for Professional Conduct.

**CORRECTIVE ACTION PROCESS**

There is no Corrective Action offered on this course. As determined by the Instructor of Record, the student will receive an N grade for the course if all assignments are not completed successfully by the last day of rotation at 11:59pm (with the exception of the Attending Evaluation). Additionally, a letter of unprofessional behavior for late submission of assignments will be sent to the MSUCOM Spartan Community Clearinghouse.
BASE HOSPITAL REQUIREMENTS
Students are responsible for completing all additional requirements set by the hospital/clinical site in which the student is completing the rotation. Students are not responsible for reporting results of requirements outside the ones listed above to the college.

STUDENT RESPONSIBILITIES AND EXPECTATIONS
Course participants will meet the preceptor on the first day of the rotation at a predetermined location to be oriented to rotation hours, location(s), and expected duties and responsibilities while on-service.

1. The student will meet the following clinical responsibilities during this rotation:
   o Students are expected to function collaboratively on health care teams that include health professionals from other disciplines in the provision of quality, patient-centered care.

2. The student will meet the following academic responsibilities during this rotation:
   o Students are expected to identify, access, interpret and apply medical evidence contained in the scientific literature related to patients health problems.
   o Students are expected to: assess their personal learning needs specific to this clinical rotation, engage in deliberate, independent learning activities to address their gaps in knowledge, skills or attitudes; and solicit feedback and use it on a daily basis to continuously improve their clinical practice.
   o It is the students responsibility to notify the Clerkship Office (com.clerkship@msu.edu) immediately if they are placed on quarantine or contract COVID.

MSU COLLEGE OF OSTEOPATHIC MEDICINE STANDARD POLICIES
The following are standard MSUCOM policies across all Clerkship rotations.

ATTENDANCE POLICY

OVERVIEW
Michigan State University College of Osteopathic Medicine (MSUCOM) requires student participation in clerkship rotations and clinical activities with consistent attendance to acquire the skills and knowledge that are necessary for successful program completion. Students are expected to take minimal time off outside of vacations already appearing in schedules and should only request time off in the rare events and circumstances outlined below.

Specific courses may have additional absence requirements from this general clerkship policy, and it is the student’s responsibility to adhere to these requirements according to the respective course syllabus.

GENERAL POLICY
• All absences from rotations must be excused absences obtained by completing the Clerkship Program Excused Absence Request Form.
  o Appropriate signatures must be obtained from both the attending physician and the student coordinator at the rotation site.
  o MSUCOM Assistant Dean for Clerkship Education must approve absences for prolonged illnesses, bereavement, research presentations/conferences, or absences exceeding the maximum time off any one rotation.
Once appropriate approval signatures are obtained, forms should be maintained for your records in the event they are requested or required at a later date.

- **Unexcused absences** are absences taken without the proper completion of the *Clerkship Program Excused Absence Request Form*, or absences outside of those listed in the Clerkship Attendance Policy. Unexcused absences are considered unprofessional and will result in a report to the Spartan Community Clearing House and/or the MSUCOM Committee on Student Evaluation (COSE).

<table>
<thead>
<tr>
<th>Length of rotation</th>
<th>Maximum number of days off</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 weeks</td>
<td>2 days</td>
<td>Should an absence exceed these limits, the student is responsible for requesting additional days from the Assistant Dean for Clerkship Education via email (<a href="mailto:com.clerkship@msu.edu">com.clerkship@msu.edu</a>) prior to the absence.</td>
</tr>
<tr>
<td>2 weeks</td>
<td>0 days</td>
<td></td>
</tr>
</tbody>
</table>

**Exception for residency interviews from October to January in Year 4 only**

A fourth-year student may be absent a total of 4 days on any 4-week rotation, or 2 days on any 2-week rotation during the months of October-January during Year 4 for interview purposes only. If interview absences exceed these totals, the student must request additional days off from the MSUCOM Instructor of Record (IOR) for the course/rotation by submitting a *Clerkship Program Excused Absence Request Form* to the Course Assistant (CA). Contact information for the IOR and CA are found on the first page of the respective MSUCOM course syllabus.
<table>
<thead>
<tr>
<th>Absence Type</th>
<th>Qualifications</th>
<th>Maximum number of days off</th>
<th>Details</th>
<th>Required Approval from Assistant Dean for Clerkship Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Day</td>
<td>Illness&lt;br&gt;Medical/Dental appointments&lt;br&gt;Wedding, family graduations&lt;br&gt;(additional reasons must be discussed with the Asst Dean for Clerkship Education prior to request)</td>
<td>5 total days per year&lt;br&gt;(individual events must comply with the max of 2 days off any 4-week rotation)</td>
<td>Vacations must be planned during allotted vacation time in schedule. Vacations are not acceptable personal day absences.</td>
<td>No</td>
</tr>
<tr>
<td>Jury Duty</td>
<td>Court documentation must accompany the Clerkship Program Absence Request Form.</td>
<td>N/A</td>
<td>Jury duty, when obligated, is not considered a personal day absence</td>
<td>Yes</td>
</tr>
<tr>
<td>Hospital-organized community events</td>
<td>Example: Special Olympic Physicals</td>
<td>N/A</td>
<td>These events would be considered part of the rotation and not a personal day absence.</td>
<td>No</td>
</tr>
<tr>
<td>Examination</td>
<td>COMLEX USA Level 2&lt;br&gt;CE/USMLE Step 2&lt;br&gt;CK/Canadian MCCEE</td>
<td>1 day</td>
<td>Students should be reporting to rotation before/after examination</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>COMAT/NBME shelf examinations</td>
<td>Time required to complete exam</td>
<td>While on required/core rotations, no excused absences for any professional meeting will be allowed unless the student is presenting research in which they have participated. Required for request to Asst Dean for Clerkship Education; conference agenda, location, date of presentation, invitation, or confirmation of presentation by conference staff, proposed dates of absence.</td>
<td>No</td>
</tr>
<tr>
<td>Conference/Research Presentation</td>
<td>Research presentation on core rotation</td>
<td>Travel and presentation time only</td>
<td>While on required/core rotations, no excused absences for any professional meeting will be allowed unless the student is presenting research in which they have participated. Required for request to Asst Dean for Clerkship Education; conference agenda, location, date of presentation, invitation, or confirmation of presentation by conference staff, proposed dates of absence.</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Conference or research presentation while on an elective rotation</td>
<td>3 days on a 4-week elective rotation</td>
<td>Student must submit Clerkship Program Excused Absence Request Form and copy of conference agenda to the Assistant Dean for Clerkship Education to attend one (1) professional meeting on a 4-week rotation. Students cannot miss rotation days for a conference during a 2-week elective rotation.</td>
<td>Yes</td>
</tr>
<tr>
<td>Prolonged Illness, Bereavement, Maternity Leave</td>
<td>Medical related absence or bereavement</td>
<td>TBD</td>
<td>Students-contact the Assistant Dean for Clerkship Education to discuss time off rotations</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Clerkship Program Excused Absence Request Forms**: Once appropriate approval signatures are obtained; forms should be maintained for your records in the event they are requested or required at a later date.
POLICY FOR MEDICAL STUDENT SUPERVISION

Supervisors of the Medical Students in the Clinical Setting
The MSUCOM curriculum includes required clinical experiences in a variety of clinical learning environments. The role of the student is to participate in patient care in ways that are appropriate for the student’s level of training and experience and to the clinical situation. The student’s clinical activities will be under the supervision of licensed physicians. This supervising physician may delegate the supervision of the medical student to a resident, fellow, or other qualified healthcare provider, however, the supervising physician retains full responsibility for the supervision of the medical students assigned to the clinical rotation and must ensure his/her designee(s) are prepared for their roles for supervision of medical students.

The physician supervisor and his/her designee(s) must be members in good standing in their facilities and must have a license appropriate to his/her specialty of practice and be supervising the medical student within that scope of practice as delineated by the credentialing body of the facility.

Level of Supervision/Responsibilities
Clinical supervision is designed to foster progressive responsibility as a student progresses through the curriculum, with the supervising physicians providing the medical student the opportunity to demonstrate progressive involvement in patient care. MSUCOM students will be expected to follow clinical policies of the facility regarding medical records and clinical care. Medical student participation in patient history/physical exam, critical data analysis, management, and procedures will include factors, but not limited to:

- The student’s demonstrated ability
- The student's level of education and experience
- The learning objectives of the clinical experience

First and second year medical students will be directly supervised at all times (supervising physician or designee present or immediately available.)

Third- and fourth-year medical students will be supervised at a level appropriate to the clinical situation and student’s level of experience. For some tasks, indirect supervision may be appropriate for some students. Direct supervision would be appropriate for advanced procedures.

Supervising physicians will provide medical students with timely and specific feedback on performance. The supervising physician will complete a mid-rotation evaluative discussion with the medical student. Supervising physicians will complete a summative evaluation and are encouraged to contact the course/clerkship director with any gaps in student performance.

Medical students with any concern regarding clinical, administrative, and educational or safety issues during his/her rotation will be encouraged to contact the supervising
physician or clerkship/course director.

STATEMENT OF PROFESSIONALISM
Principles of professionalism are not rules that specify behaviors but guidelines that provide direction in identifying appropriate conduct. These principles include the safety and welfare of patients, competence in knowledge and skills, responsibility for consequences of actions, professional communication, confidentiality, and lifelong learning for maintenance of professional skills and judgments. Professionalism and professional ethics are terms that signify certain scholastic, interpersonal and behavioral expectations. Among the characteristics included in this context is the knowledge, competence, demeanor, attitude, appearance, mannerisms, integrity, and morals displayed by the student to faculty, peers, patients, and colleagues in other health care professions.

Students are expected to conduct themselves at all times in a professional manner and to exhibit characteristics of a professional student.

STUDENT RIGHTS AND RESPONSIBILITIES
Each individual student is responsible for their behavior and is expected to maintain standards of academic honesty. Students share the responsibility with faculty for creating an environment that supports academic honesty and principles of professionalism. Proper relationship between faculty and student are fundamental to the college's function and this should be built on mutual respect and understanding together with shared dedication to the education process. It is a fundamental belief that each student is worthy of trust and that each student has the right to live in an academic environment that is free of injustice caused by dishonesty. While students have an obligation to assist their fellow students in meeting the common goals of their education, students have an equal obligation to maintain the highest standards of personal integrity.

MSU Email
To facilitate communication from faculty and staff to students, students are required to have a functioning MSU email address. Students are responsible for checking their MSU email accounts daily and maintaining their MSU mailboxes so that messages can be received.

Forwarding MSU email to another email account or failure to check email are not valid excuses for missing a deadline or other requirements of the clinical education program.

Further, students must use secure email when working in a hospital, clinic, or other health care setting if discussion of patient information is involved. MSUNet (msu.edu) email is secure; many web-based email systems including Hotmail, Gmail and Yahoo are not.
FACULTY RESPONSIBILITIES
It is the responsibility of the college faculty to specify the limits of authorized aid (including but not limited to exams, study aids, internet resources and materials from senior students) in their syllabi, and it is the responsibility of students to honor and adhere to those limits. Course instructors shall inform students at the beginning of the semester of any special criteria of academic honesty pertinent to the class or course.

It is the responsibility of the clinical faculty to provide students with ongoing feedback during rotation upon request. Clinical faculty are generally recommended (though not required) to limit student assigned duty hours from 40 to 60 hours weekly (and not exceeding 60 hours). Both faculty and students are to be treated fairly and professionally to maintain a proper working relationship between trainer and trainee.

COURSE GRADES
H/Honors – A grade of honors will be designated to students demonstrating outstanding clinical, professional, and academic performance in certain core rotations. Criteria for achieving honors in a core rotation will be determined by the Instructor of Record and will be listed in the course syllabi. While Honors designation will be awarded to students meeting the criteria in the syllabi of the above courses, Honors is not an official MSU grade. The official MSUCOM transcript will reflect a grade as Pass with an additional notation that the student achieved Honors in the course. The students Medical Student Performance Evaluation will reflect each Honors grade.

P/Pass – means that credit is granted, and that the student achieved a level of performance judged to be satisfactory by the department according to the student's didactic and clinical performance.

ET/Extended Grade – means that a final grade ('Pass' or 'No Grade') cannot be determined due to one or more missing course requirements. The ET grade will be changed to a final grade once all the completed course requirements have been submitted to and processed by MSUCOM (either to the department or Clerkship Team). An ‘ET’ grade will NOT remain on a student’s transcript.

N/No Grade – means that no credit is granted, and that the student did not achieve a level of performance judged to be satisfactory by the department according to the student's didactic and clinical performance.

N Grade Policy
Students who fail this rotation will have to repeat the entire rotation and fulfill all (clinical and academic) requirements.

STUDENT EXPOSURE PROCEDURE
A form has been developed by the University Physician to report incidents of exposure, e.g. needle sticks, mucous membrane exposure, tuberculosis exposure, etc., and may
be found on the Clerkship Medical Education page of the MSUCOM website here (https://com.msu.edu/current-students/clerkship-medical-education).

Contact Assistant Dean for Clerkship Education, Dr. Susan Enright, if exposure incident occurs: enright4@msu.edu.

STUDENT VISA
Michigan State University is committed to providing equal opportunity for participation in all programs, services, and activities. Requests for accommodations by persons with disabilities may be made by contacting the Resource Center for Persons with Disabilities (RCPD) at 517-884-RCPD, or on the web at www.rcpd.msu.edu. Once a student’s eligibility for (clinical and/or testing) accommodation has been determined, the student may be issued a Verified Individualized Services and Accommodations (VISA) form. Students must present this VISA form to the Clerkship Team (COM.Clerkship@msu.edu), A-332 East Fee Hall, at the start of the semester in which they intend to use their accommodations (for tests, projects, labs, etc.). Accommodation requests received after this date will be honored whenever possible.

If updates or modifications to an existing VISA form are made after the semester begins, it is the responsibility of the student to submit an updated version to the Clerkship Team if he or she intends to use the new accommodation going forward.
### STUDENT EXPERIENCE LOG

Student Name: ___________________________ Student ID#: _____________________

Patient Types and Procedure Log

<table>
<thead>
<tr>
<th>Procedure</th>
<th>#Required</th>
<th>Date</th>
<th>Supervisor Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluate 2 patients with acute kidney injury</td>
<td>1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td></td>
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<tr>
<td>Evaluate 2 patients with electrolyte disturbances</td>
<td>1.</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interpret 10 BUN/Cr and electrolyte sets to assess for acute or chronic kidney disease</td>
<td>1.</td>
<td></td>
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<td></td>
<td>2.</td>
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<td>3.</td>
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<td>4.</td>
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<td>6.</td>
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<td></td>
<td>9.</td>
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<td></td>
<td>10.</td>
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</tr>
<tr>
<td>Participate in five Nephrology consults in the hospital or office.</td>
<td>1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.</td>
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<tr>
<td></td>
<td>3.</td>
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<td></td>
<td>5.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requirement</td>
<td>Submission Method</td>
<td>Honors</td>
<td>Pass</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>------------------------------------------------------------------------------------</td>
<td>--------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>Patient Types and Procedure Log</td>
<td>See page at the end of syllabus and upload into D2L Drop Box for the course</td>
<td>N/A</td>
<td>Completed and submitted by 11:59 pm Last Sunday of Rotation</td>
</tr>
<tr>
<td>Clinical Shift Schedule</td>
<td>Upload to D2L Drop Box</td>
<td>N/A</td>
<td>Not to be submitted until the last Friday-Sunday of the rotation, and must be the schedule you worked, not what you were scheduled to work.</td>
</tr>
<tr>
<td>Attending Evaluation of Clerkship Student</td>
<td>Can be accessed via the “Attending Evaluation” link in Kobiljak online schedule. Email completed evaluation to <a href="mailto:COM.Clerkship@msu.edu">COM.Clerkship@msu.edu</a></td>
<td>N/A</td>
<td>Completed and submitted by Last Day of Rotation</td>
</tr>
<tr>
<td>Requirement</td>
<td>Submission Method</td>
<td>Honors</td>
<td>Pass</td>
</tr>
<tr>
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</tr>
<tr>
<td>Student Evaluation of Clerkship Rotation</td>
<td>Can be accessed and submitted via the “Student Evaluation” link in Kobiljak online schedule.</td>
<td>N/A</td>
<td>Completed and submitted by Last Day of Rotation</td>
</tr>
</tbody>
</table>