

IM 706, ENDOCRINOLOGY ELECTIVE ROTATION SYLLABUS ROTATION LENGTH TBD CLINICAL EDUCATION

1. Contact Information				
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2. Course Description/Overview

This Endocrinology clerkship is scheduled with a preceptor who is an expert in this field. The student will experience the dayto-day activities of clinicians as he/she assists in the care of their patients. Exposure to patients in the clinic setting will give the student opportunity to practice interview, examination, documentation and presentation skills. These activities help develop student's clinical reasoning and provide opportunities to learn necessary professional activities. The student may be afforded by the preceptor the opportunity to participate in procedures as the preceptor determines their readiness. The curriculum for this rotation is based on nationally recognized recommendations from the Clerkship Directors for Internal Medicine. For further reading, visit <u>Alliance for Academic Internal Medicine</u>.

3. Course Purpose/Goals

The objective of the Endocrinology clerkship is to provide the student exposure and clinical experience in the practice of this specialty. Completion of this course should prepare the student well for the COMAT and COMLEX exams, give a foundation for knowledge, and make them competitive for residency.

Nationally, there is a move to utilize EPAs to ascertain a student's residency preparedness. Below you will find a table of the EPAs PWNU will be utilizing in the future.

4. Entrustable Professional Activities (EPAs)		
EPAs	Description of Activity	Domains of Competence
EPA 1: Gather a history and perform a physical examination including an osteopathic structural exam as appropriate.	Osteopathic medical students should be able to perform an accurate, complete or focused history and physical exam in a prioritized, organized manner without supervision and with respect for the patient. The history and physical examination should be tailored to the clinical situation and specific patient encounter. This data gathering and patient interaction activity serves as the basis for clinical work and as the building block for patient evaluation and management. Learners need to integrate the scientific foundations of medicine with clinical reasoning skills to guide their information gathering.	 Patient Care Knowledge for Practice Interpersonal and Communication Skills Professionalism Osteopathic Principles and Practice (OPP)
EPA 2 : Prioritize a differential diagnosis following a clinical encounter (musculoskeletal considerations that may lead to somatic dysfunction.	To be prepared for the first day of residency, all osteopathic medical students in training need to be able to integrate patient data to formulate an assessment, developing a list of potential diagnoses that can be prioritized and lead to selection of a working diagnosis. Developing a differential diagnosis is a dynamic and reflective process that requires continuous adaptation to avoid common errors of clinical reasoning such as premature closure.	 Patient Care Knowledge for Practice Practice-Based Learning and Environment Interpersonal and Communication Skills Personal and Professional Development Osteopathic Principles and Practice (OPP)
EPA 3: Recommend and interpret common diagnostic and screening tests	This EPA describes the essential ability of the day one resident to select and interpret common diagnostic and screening tests* using evidence-based and cost-effective principles as one approaches a patient in any setting	 Recommend first-line, cost-effective diagnostic evaluation for a patient with an acute or chronic common disorder or as part of routine health maintenance. Provide a rationale for the decision to order the test. Incorporate cost awareness and principles of cost- effectiveness and pre- test/post-test prob- ability in developing diagnostic plans. Interpret the results of basic diagnostic

		 studies (both lab and imaging); know Common lab values (e.g., electrolytes). Understand the implications and urgency of an abnormal result and seek assistance for interpretation as needed. Elicit and consider patient preferences in making recommendations. Clinical Experiences Presentations COMAT
EPA 4: Enter and discuss orders and prescriptions and applicable Osteopathic treatments.	Writing safe and indicated orders is fundamental to a physician's ability to prescribe therapies or interventions beneficial to patients. It is expected that Osteopathic medical students will be able to do this without direct supervision when they matriculate to residency. Entering students will have a comprehensive understanding of some but not necessarily all of the patient's clinical problems for which they must provide orders. They must also recognize their limitations and seek review and guidance for any orders and prescriptions they are expected to provide but for which they do not understand the rationale. The expectation is that learners will be able to enter safe orders and prescriptions in a variety of clinical settings (e.g., inpatient, ambulatory, urgent, or emergent care).	 Patient Care Knowledge for Practice Practice-Based Learning and Environment Interpersonal and Communication Skills Professionalism Osteopathic Principles and Practice (OPP)
EPA 5 : Document a clinical encounter in the patient record.	Osteopathic medical students should be able to provide accurate, focused, and context-specific documentation of a clinical encounter in either written or electronic formats. Performance of this EPA is predicated on the ability to obtain information through history, using both primary and secondary sources, and physical exam in a variety of settings (e.g., office visit, admission, discharge summary, telephone call, and email).	 Patient Care Interpersonal and Communication Skills Professionalism Osteopathic Principles and Practice (OPP)
EPA 6 : Provide an oral presentation of a clinical encounter.	Osteopathic medical students should be able to concisely present a summary of a clinical encounter to one or more members of the health care team (including patients and families) in order to achieve a shared understanding of the patient's current	 Practice-Based Learning and Environment Interpersonal and Communication Skills Professionalism

	condition. A prerequisite for the ability to provide an oral presentation is synthesis of the information, gathered into an accurate assessment of the patient's current condition.	 Personal and Professional Development
EPA 7 : Form clinical questions and retrieve evidence to advance patient care.	It is crucial that students be able to identify key clinical questions in caring for patients, identify information resources, and retrieve information and evidence that will be used to address those questions. Osteopathic medical students should have basic skill in critiquing the quality of the evidence and assessing applicability to their patients and the clinical context. Underlying the skill set of practicing evidence- based medicine is the foundational knowledge an individual has and the self-awareness to identify gaps and fill them.	 Knowledge for Practice Practice-Based Learning and Improvement
EPA 8 : Give or receive a patient handover to transition care responsibility.	Effective and efficient handover communication is critical for patient care. Handover communication ensures that patients continue to receive high-quality and safe care through transitions of responsibility from one health care team or practitioner to another. Handovers are also foundational to the success of many other types of inter professional communication, including discharge from one provider to another and from one setting to another. Handovers may occur between settings (e.g., hospitalist to PCP, pediatric to adult caregiver, discharges to lower-acuity settings) or within settings (e.g., shift changes).	 Patient Care Practice-Based Learning and Environment Interpersonal and Communication Skills Professionalism
EPA 9 : Collaborate as a member of an interprofessional team.	Effective teamwork is necessary to achieve the Institute of Medicine competencies for care that is safe, timely, effective, efficient, and equitable. Introduction to the roles, responsibilities, and contributions of individual team members early in professional development is critical to fully embracing the value that teamwork adds to patient care outcomes.	 Interpersonal and Communication Skills Professionalism Systems-Based Practice Interprofessional Collaboration
EPA 10 : Recognize a patient requiring urgent or emergent care and initiate evaluation and management.	The ability to promptly recognize a patient who requires urgent or emergent care, initiate evaluation and management, and seek help is essential for all physicians. New residents, in particular, are often among the first responders in an acute care setting, or the first to receive notification of an abnormal lab or deterioration in a patient's status. Early recognition and intervention provide the greatest chance for optimal outcomes in patient care. This EPA	 Patient Care Interpersonal and Communication Skills

	often calls for simultaneously recognizing need and initiating a call for assistance.	
EPA 11 : Obtain informed consent for procedures/tests (under preceptor supervision).	All physicians must be able to perform patient care interventions that require informed consent. Osteopathic medical students may be in a position to obtain signatures for informed consent for interventions, tests, or procedures they order or perform (e.g., immunizations, central lines, contrast and radiation exposures, blood transfusions, and OMM) after risks and benefits have been explained by the physician caring for the patient.	 Patient Care Interpersonal and Communication Skills Professionalism Systems-Based Practice Personal and Professional Development
EPA 12: Perform general procedures of a physician including applicable Osteopathic treatments.	 All Osteopathic medical students must demonstrate competency in performing a few core procedures under supervision on completion of medical school in order to provide basic patient care. These procedures include: Basic cardiopulmonary resuscitation (CPR) Bag and mask ventilation Venipuncture Inserting an intravenous line Osteopathic manipulative medicine (OMM) 	 Patient Care Interpersonal and Communication Skills Professionalism Systems-Based Practice Personal and Professional Development Osteopathic Principles and Practice (OPP)
EPA 13 : Identify system failures and contribute to a culture of safety and improvement.	Preventing unnecessary morbidity and mortality requires health professionals to have both an understanding of systems and a commitment to their improvement. This commitment must begin in the earliest stages of health professional education and training. Therefore, this EPA is critical to the professional formation of a physician and forms the foundation for a lifelong commitment to systems thinking and improvement.	 Knowledge for Practice Practice-Based Learning and Environment Interpersonal and Communication Skills Professionalism Systems-Based Practice

Prepared by the American Association of Colleges of Osteopathic Medicine, in conjunction with all U.S. Osteopathic Medical Schools. April 2016. Osteopathic Considerations for Core Entrustable Professional Activities (EPAs) for Entering Residency, 2016.

5. Course Learning Objectives (NBOME)		
Course Learning Objectives	Methods of Assessment	Learning Activities
Osteopathic Practice and Principles Candidates must be able to demonstrate knowledge of osteopathic principles and practice, and to demonstrate and apply knowledge of somatic dysfunction diagnosis and Osteopathic Manipulative Treatment in the clinical setting.	Preceptor and Assistant Dean Feedback and Evaluations, Case Logs, Case Presentations, Preceptor Evaluation, COMAT	Clinical experiences, Didactics, Case Presentations

Patient Care Provide patient-centered care that is culturally responsive, compassionate, and appropriate for the effective treatment of illness and promotion of health.	Preceptor and Assistant Dean Feedback and Evaluations, Case Logs, Case Presentations, Preceptor Evaluation, COMAT	Clinical experiences, Didactics, Case Presentations
Medical Knowledge Develop a foundation of practical clinical knowledge on rotations while applying basic science knowledge. Develop skill in transitioning from passive to active learning. Elements include an understanding and application of the evolving ethics of human subject research, osteopathic, biomedical, clinical, epidemiological, biomechanical, and cognate (e.g., epidemiological and social-behavioral) sciences in order to optimize patient care.	Preceptor and Assistant Dean Feedback and Evaluations, Case Logs, Case Presentations, Preceptor Evaluation, COMAT	Clinical experiences, Didactics, Case Presentations
Clinical Skills Recognize important roles of administrative personnel, nurses and physicians in the delivery of health care that contributes to a student's professional development. Further refine patient history and physical exam, and patient case presentations.	Preceptor and Assistant Dean Feedback and Evaluations, Case Logs, Case Presentations, Preceptor Evaluation, COMAT	Clinical experiences, Didactics, Case Presentations
Practice-Based Learning and Improvement Demonstrate the ability to continuously evaluate patient care practices, scientific evidence and personal beliefs and biases as they relate to improving the care of patients and optimizing patient outcomes.	Preceptor and Assistant Dean Feedback and Evaluations, Case Logs, Case Presentations, Preceptor Evaluation, COMAT	Clinical experiences, Didactics, Case Presentations
Interpersonal and Communication Skills Demonstrate the ability to consistently interact respectfully, empathetically, and professionally with patients, families, allied health care providers, staff and colleagues, to optimize patient and research outcomes.	Preceptor and Assistant Dean Feedback and Evaluations, Case Logs, Case Presentations, Preceptor Evaluation, COMAT	Clinical experiences, Didactics, Case Presentations
Professionalism Cultivate professional growth through interactions with all members of the of the health care organization Exhibit appropriate, professional behavior.	Preceptor and Assistant Dean Feedback and Evaluations, Case Logs, Case Presentations, Preceptor Evaluation, COMAT	Clinical experiences, Didactics, Case Presentations, Skills Labs
Knowledge for Practice Develop a foundation of knowledge in anatomy, physiology, pathophysiology, clinical medicine, osteopathic principles related to Primary Care, and clinical research. Students will be expected to apply this knowledge and demonstrate effective diagnostic and therapeutic reasoning skills related to these systems.	Preceptor and Assistant Dean Feedback and Evaluations, Case Logs, Case Presentations, Preceptor Evaluation, COMAT	Clinical experiences, Didactics, Case Presentations, Skills Labs
Systems-Based Practice Effectively utilize available health care system resources to provide optimal health care to the individual patient and local and global communities.	Preceptor and Assistant Dean Feedback and Evaluations, Case Logs, Case Presentations, Preceptor Evaluation, COMAT	Clinical experiences, Didactics, Case Presentations, Interprofessional Education (IPE)

NBOME Fundamental Osteopathic Medical Competencies. June 2016

6. Course Schedule/Calendar

Please refer to the rotation schedule in E*Value. The rotation block is scheduled from Monday of the first day through Sunday of the last day. It is the expectation that the student will be available to assist the preceptor or designee whenever they are working. This may include evening and weekend call time as assigned by the preceptor and may be up to 80 hours per week. If the rotation involve shifts the student will be expected to work at least four 10-12 hour shifts including a mixture of days, nights and weekends. The student will inform the RSA of their rotation schedule.

7. Course Format

The Clinical Didactics longitudinal course takes place over the third and fourth years of medical school. It consists of two hundred hours of educational activities. Faculty-led components will be held on Wednesday afternoons. Attendance and completion of assigned tasks will be tracked and will be reviewed with the student's Assistant Dean on a periodic basis. Successful completion of the Clinical Didactics course is required for graduation. Details for educational activities will be shared with students on a weekly basis.

8. Course Logistics

PNWU clinical rotations utilize a community training model. Community training involves placing students in a busy physician's practice, hospital-based experience, or residency program with learning objectives that direct the student's focus.

The student is expected to be self-motivated to read about the cases seen and prepare for upcoming cases. Students should avail themselves of learning opportunities, while taking advantage of clinical cases that present and further augment with reading and modules to complete the objectives. Professionalism means development of lifelong learning patterns and behaviors. The texts and learning resources will provide information necessary for successfully studying in this rotation. Preceptors and residents may direct the student to their favorite texts or online resources.

The Lange Series available on Access Medicine provides medical student level foundational knowledge in Core subjects. Modules for clerkship training are also available on Access Medicine.

<u>Case Logs</u>

The cases listed below are the course objectives for this rotation. These objectives will prepare the student with a wide breadth of understanding of the common and life-threatening conditions related to this rotation.

Electives occur predominantly in the fourth year, and fourth-year students should focus on a deeper understanding of the disease processes than encountered during core rotations. Beyond the areas covered in 3rd year cores (signs, symptoms and physical exam, differential diagnosis, basic pathophysiology, diagnostic studies needed and their interpretation, and initial treatment) the fourth-year student should also be able to address:

•Comorbidities

- •Polypharmacy and Drug interactions
- •Diagnostic testing
- Chronic treatment

Logs of the cases will be documented in E*value (see the *Case Logs* tab in E*value). Logs may be satisfied by seeing a patient with the condition, completing a reading assignment on the condition, or completing an online module providing the student an understanding of the above concepts.

When participating in patient care, the student may wish to briefly state information about a patient for future reference in the "Notes" section. For example: "38-year-old male with depression" or "42-year-old female, assisted in total abdominal hysterectomy". If a reading is completed or a module is completed, then briefly comment in the "Notes" section the textbook utilized or the module completed.

While elective rotations must have at least one objective entered per day on rotation to meet graduation requirements (i.e. 5+ objectives per week), logging the total number of encounters participated in will better reflect the student's rotation experience. The logs may be collated in a portfolio to showcase student work for residency interviews.

Cases			
Condition	Direct Patient Care	Observation	Reading/Module
Abnormal endocrine states			
Abnormal fasting glucose			
Abnormal laboratory tests			
Adrenal insufficiency diagnosis and treatment			
Ant thyroid treatment			
Diabetes mellitus, type l			
Diabetes mellitus, type II			
Goiter			
Gonadal disorder			
Hyperthyroidism			
Hyperuricemia			
Hypothyroidism			
Impaired glucose tolerance			
Insulin therapy – different types			
Lipid metabolism disorder			
Menstruation disorder			
Non-Insulin treatment of Diabetes			
Obesity			
Ovary disorder			
Parathyroid function disorder			
Perform endocrinology exam and measurements			
Pituitary disorder			
Radioisotope methods for evaluation of			
endocrine function			
Replacement therapy for endocrine disorders			
Secondary endocrinopathy hypertension			
Surgery for endocrine disorders			
Testes disorder			
Thyroid disease and medications			

SOAP Notes

Mastery of writing SOAP notes is an important skill for students to learn. Some of the purposes of SOAP notes include to:

- Reflect the evolution of the physician's thinking progress as a case unravels, differential diagnosis is created and a final diagnosis surfaces
- Communicate patient status and progress to others involved in care
- Maintain a record for future reference
- Document care for billing purposes
- Protect from liability
- Follow a verbal presentation format

Various organizations have different institutional policies on who may access the electronic medical records (EMR) which may not provide students the opportunity to write notes in the legal record. When the institution allows access to the EMR, the student is expected to utilize the EMR as directed by their preceptor. Writing a SOAP note is an excellent exercise to organize the information known about a patient and will assist a student in their clinical presentation and reasoning. The student should be writing notes every day, either in the chart when permitted, or as a separate activity. Students should have their preceptor and/or Assistant Dean review their SOAP notes and elicit feedback on their clinical reasoning.

Students should learn the terminology utilized in the discipline, and the expectations of their preceptor for each SOAP note type. Students should review the core SOAP note modules located on the third-year core clerkship SharePoint pages found in the on the Medical Students EHR Documentation Training Module that discusses the documentation of a thorough history and physical. Students should use the focused discipline note for a routine visit.

Case Presentations

An important clinical skill is communication with other members of the health care team through well-organized case presentations. There are three basic types of case presentations:

- Clinical Rounds/Office Presentation
 - Daily reports of patient progress
 - o Briefly recap patient presentation and changes since last visit
 - Takes several minutes and varies by specialty disciplines
- Morning Report
 - Students should be prepared to present their assigned patient's overnight clinical status and labs
 - o Students should read about their cases and be able to discuss
 - Review of patient presentation to preceptors, residents, and medical learners
 - If presenting a teaching case ask questions that stimulate creation of differential diagnoses
 - Be prepared to discuss salient teaching points and latest recommendations
 - o Usually takes 10-15 minutes
- Formal Disease Process
 - \circ 30-60 minutes presentation that begins with a case
 - o More in-depth discussion of the disease process and treatment options
 - o Usually use a PowerPoint or Prezi
 - o Use this format for the recorded presentation graduation requirement

Students should be presenting patients to their preceptor or resident on a daily basis. The structure of these reports should follow the same format as the SOAP notes. Learning to present in a systematic way is an essential skill that develops with experience and shows that the student has learned the basic communication of the health care team. The Assistant Dean will

also request students to present case reports to judge their progress. Other members of the team will judge a student's medical knowledge and progression in clinical reasoning by the student's skill in delivering case presentations.

9. Learning Assessment	
Formative Assessments	
Assessment	Pass/Fail
Assistant Dean Reviews	Pass/Fail
Review of Case Logs to ensure 100% completion	Pass/Fail
Evaluation of Formal Presentation – Assistant Dean	Pass/Fail
Mid-rotation Preceptor Review (if applicable)	Not graded
Preceptor Evaluation of Student Performance in Core Competencies	Pass/Fail

Summative Assessments	
Assessment	Pass/Fail
Preceptor Evaluation of Student Performance	Pass/Fail
Attendance (any unexcused absence constitutes a fail)	Pass/Fail

Grades for this course are Pass/Fail. All assessments must have a grade of "Pass" to pass a rotation. Any of the summative assessments with a "Fail" will require remediation of the rotation. Students who have not completed the rotation satisfactorily will be referred to Student Progress Committee for determination of remediation.

10. Exam Policy

Third year

Each third-year core rotation, except Primary Care Core, will be evaluated by a COMAT end of service examination. The COMAT is a national standardized examination produced by NBOME to ensure all students have met course objectives. A student must first pass the accompanying TrueLearn pre-assessment to schedule their COMAT. A passing score for required COMAT examinations is a graduation requirement. Refer to the Student Handbook for more details.

Fourth year

No end-of-service examinations are required by PNWU during electives.

11. Course Textbooks & Supplies	
Required Textbooks	
Title/ISBN	Author/Publisher/Edition
None. Preceptor may recommend reading materials.	
None. Preceptor may recommend reading materials.	
Suggested Additional Resources	

Author/Publisher/Edition

Title/ISE	ЗN
1100,101	

CURRENT Medical Diagnosis and Treatment 2021 ISBN: 9781260469868	Maxine A. Papadakis, Stephen J. McPhee, Michael W. Rabow, McGraw-Hill. Available on <u>AccessMedicine</u>	
Foundations of Osteopathic Medicine ISBN: 9781496368324	Michael A. Seffinger (editor), Lippincott Williams & Wilkins, 4th edition. <u>Available on LWW Health Library</u>	
Harrison's Principles of Internal Medicine ISBN: 9781259644030	J. Larry Jameson, et al. (editors), McGraw-Hill, 20th edition. Available on <u>Access Medicine</u>	
Merck Manual	http://www.merckmanuals.com	
Merriam-Webster Medical Dictionary	https://www.merriam-webster.com/medical	
The Washington Manual of Medical Therapeutics ISBN: 9781975113483	Zachary Crees, et al.,, Lippincott Williams & Wilkins, 36th edition. Available on <u>Ovid</u>	
Williams Textbook of Endocrinology ISBN: 9780323555968	Shlomo Melmed, et al., Saunders, 14th edition. Available on <u>Clinical Key</u>	

12. Student Roles and Responsibilities

Links to current Student Catalog and Student Handbook:

https://www.pnwu.edu/students/student-catalog

https://www.pnwu.edu/students/student-handbook

a. Student Professionalism

Professional behavior is expected at all times during this course. It is important that students learn to discuss topics of a sensitive nature in a caring and professional manner. Use of cell phones or texting during class is prohibited. For further clarification of student professionalism expectations, see Student Catalog.

b. Honor Code

The highest standards of academic honesty are required of all PNWU-COM students at all times. It is expected that no PNWU student will be dishonest in any way, or give the impression of dishonest behavior, nor will PNWU students tolerate dishonesty in others. Disciplinary action may occur as a result of failure to comply with these standards.

c. Academic Support

Students who are having difficulty meeting the requirements of this course should discuss it with their Assistant Dean whenever a problem arises. Students in need of peer tutorial assistance are directed to contact the Learning Skills Specialist on campus through Student Affairs. Though Student Affairs strives to accommodate all tutorial assistance requests, priority will be given to students who demonstrate need based on their academic performance.

The most successful students will practice the following behaviors:

First day

- Share contact information with the preceptor and learn what expectations of communication are.
- Ensure the preceptor has a copy of the PNWU syllabus for the course.

- Ask about the regular schedule, on-call expectations and notify the preceptor if there are any excused absence days (i.e. COMLEX exams).
- Find out where personal items may be placed and documentation can be done, as well as policies regarding student access to and documentation on medical records.
- Greet and be courteous to clinic staff. Be careful of joking, off-color humor or comments that could be misunderstood.
- Clarify expectations for the use of electronic aids.
- Ask if he/she should pre-round on hospital inpatients and clarify time and place for meeting daily.

<u>Daily</u>

- Be on time and prepared with what is needed.
- Greet and be courteous to clinic staff. Be careful of joking, off-color humor or comments that could be misunderstood. Review patients for the next day for topics to read on.
- Read or do modules on patients seen that day for reinforcement of learning.
- Log every day. Two to three cases logged every day will help get through the "must see" cases without last-minute cramming.
- Be prepared to assist in any opportunities that present.
- Be enthusiastic. No matter what your area of future specialization is in your interest, a student will be exposed to cases and situations that may not be seen again in their career.

Weekly

- Participate in didactics.
- Be prepared with interesting cases he/she has seen throughout the week help teach classmates.
- Return to his/her clinical responsibilities before/after didactics (this should not be a full day off!).
- Review progress on logs and the growth of his/her understanding.

Mid-Rotation (Optional but Encouraged)

• The student should request feedback on how he/she is doing. It is the student's responsibility to document the feedback on the mid-rotation review and save for future reference. Students should make adjustments to performance based on that feedback. The form can be located here: https://www.pnwu.edu/students/student-forms

End of Rotation

• The student should ask for a final review of his/her performance during the last week of the rotation. Students should be receiving feedback from the preceptor informally daily on performance and areas needing improvement. Supplying the preceptor with a paper copy of the evaluation will help secure completion of the evaluation while the student's performance is fresh in the preceptor's mind. If the student has felt especially positive about the interactions, the student should consider asking the preceptor if he/she would be willing to write a strong letter of recommendation.