COURSE SYLLABUS & SCHEDULE

COURSE: PAS604 Clinical Experience Office Orthopedics

ACADEMIC CREDIT: 2 semester hours

COURSE DESCRIPTION: Four week required rotation in an orthopedics office clinical setting. Students engage in all aspects of patient care, including history taking, physical examination, and treatment plan design and evaluation. Students’ application of patient and family education to treatment and preventive measures is emphasized.

PREREQUISITES: Successful completion of the PA program didactic year.

COURSE COORDINATOR:
Faculty Name and Title: Kelli Huesman, MPAS, PA-C, Director of Clinical Education
Email: khuesman1@udayton.edu
Phone: 937-229-3281
Fax: 937-229-2903
Office Hours: Variable, please contact directly for an appointment
Contact policies: Available during office hours, or through email

CLINICAL PRECEPTOR: As assigned by clinical faculty

TIME/LOCATION: Offsite at clinical facility, location TBD, see schedule for definitive information

RECOMMENDED TEXTS:

Orthopedics:

Anatomy and Physiology:

Genetics:

History and Physical Exam:

Clinical Medicine:


**Labs:**

**Radiology:**

**Pharmacology:**

**Procedures:**

**ARC-PA STANDARDS FOR CLINICAL EXPERIENCES**

- **B1.01** The curriculum *must* be consistent with the mission and *goals* of the program
- **B1.02** The curriculum must include core knowledge about established and evolving biomedical and clinical sciences and the application of this knowledge to patient care.
- **B1.09** For each didactic and clinical course, the program *must* define and publish *instructional objectives* that guide student acquisition of required *competencies*.
- **B3.01** PA students *must* be clearly identified in the clinical setting to distinguish them from physicians, medical students and other health profession students and graduates.
- **B3.02** *Supervised clinical practice experiences* must enable students to meet program expectations and acquired the *competencies* needed for entry into clinical PA practice.
- **B3.03** *Supervised clinical practice experiences* must provide *sufficient* patient exposure to allow each student to meet program expectations and acquire the competencies needed for entry into clinical PA practice with patients seeking:
  a) Medical care across the life span to include, infants, children, adolescents, adults, and the elderly
  b) Women’s health (to include prenatal and gynecologic care)
  c) Care for conditions requiring surgical management, including pre-operative, intra-operative, post-operative care and
  d) Care for behavioral and mental health conditions.
- **B3.04** *Supervised clinical practice experiences* *must* occur in the following settings:
  a) Outpatient
  b) Emergency Department
  c) Inpatient
  d) Operating Room
- **B3.05** *Instructional faculty* for the supervised clinical practice portion of the educational program *must* consist primarily of practicing physicians and PAs
- **B3.06** *Supervised clinical practice experiences* *should* occur with:
  a) Physicians who are specialty board certified in their area of instruction
  b) PAs teamed with physicians who are specialty board certified in their area of instruction
  c) Other licensed health care providers experienced in their area of instruction
- **B3.07** *Supervised clinical practice experiences* should occur with preceptors practicing in the following disciplines:
  a) Family medicine,
b) Internal medicine,  
c) General surgery  
d) Pediatrics  
e) OB/GYN  
f) Behavioral/Mental Health Care

PROGRAM COMPETENCIES REQUIRED FOR CLINICAL PRACTICE

- **Knowledge**
  - Medical knowledge  
    - Students/graduates are expected to possess the basic information necessary to effectively treat patients.

- **Skills**
  - Interpersonal and Communication Skills  
    - Students/graduates are expected to effectively communicate with patients, their families, and all members of the health care team.
  - Technical skills  
    - Students/graduates are expected to effectively perform technical skills needed for treating patients in the clinical setting.
  - Clinical skills  
    - Students/graduates are expected to demonstrate the clinical skills necessary to effectively evaluate patients.

- **Clinical reasoning and problem solving**
  - Students/graduates are expected to possess proficient clinical reasoning and problem solving abilities in order to effectively treat patients.

- **Professionalism**
  - Students/graduates are expected to display positive values throughout all areas of health care, knowing their personal and professional limitations while practicing in an ethical and moral manner.

LEARNING OUTCOMES

- **Knowledge:**
  - **Medical Knowledge:** The student must demonstrate knowledge of basic sciences, patient presentation, and development of differential diagnoses, patient management, surgical principles, health promotion and disease prevention.

- **Skills:**
  - **Interpersonal and Communication Skills:** The student must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, patient families and all members of the health care team.
  - **Technical Skills:** The student must be able to demonstrate technical skills required in specific clinical settings.
  - **Clinical Skills:** The students must demonstrate the clinical examination skills necessary for effective patient care.

- **Clinical reasoning and problem solving:**
  - The student must analyze history and physical examination findings and diagnostics in order to develop/synthesize a differential diagnosis, and recommend patient management.

- **Professionalism:**
  - The student must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles and sensitivity to a diverse patient population.
INSTRUCTIONAL OBJECTIVES: Clinical Experience in Office Orthopedics

For specific conditions mentioned in the following objectives, please refer to the topic list at the end of this document.

**Knowledge**

Upon successful completion of the rotation, the student should be able to:

1. Explain disease etiologies, risk factors, underlying pathologic process and epidemiology for common conditions seen in an orthopedics office.
2. Describe signs and symptoms for commonly seen diseases and disorders encountered in an orthopedics office related to the most frequent presentation for a given disorder.
3. Collect sufficient, essential, and accurate history to direct an appropriate physical examination and develop correct diagnoses commonly seen in an orthopedics office.
4. Formulate appropriate differential diagnoses during patient presentations.
5. Manage general medical and surgical conditions seen in an orthopedics office to include understanding the indications, contraindications, side effects, interactions and adverse reactions of pharmacological agents and other relevant treatment modalities.
6. Select and interpret appropriate diagnostic or laboratory studies.
7. Identify appropriate interventions for prevention of conditions commonly seen in an orthopedics office.

**Skills**

**Interpersonal and Communication Skills:**

Upon successful completion of the rotation, the student should be able to:

1. Adapt their communication style to the context of all patient interactions.
2. Produce reliable, accurate, concise, organized documentation for patient interactions.
3. Communicate effectively in both written and verbal format with all members of the health care team.
4. Conduct respectful interviews, with empathy and sensitivity.
5. Counsel and educate patients and their families regarding present medical conditions.
6. Counsel and educate patients and their families regarding preventive health care in orthopedics, i.e.: lifestyle changes or screenings as needed.

**Technical Skills and Clinical Skills:**

Upon successful completion of the rotation, the student should be able to:

1. Effectively discuss risks, benefits, and alternatives for procedures commonly encountered in an orthopedic setting.
2. Demonstrate competent performance in medical and surgical procedures that are considered essential in the area of orthopedics.
3. Demonstrate appropriate physical examination skills.
4. Recognize abnormal physical examination findings and correlate these findings to possible diagnoses.

**Clinical Reasoning and Problem Solving:**

Upon successful completion of the rotation, the student should be able to:

1. Develop an appropriate differential diagnosis.
2. Recommend appropriate medical management based on evaluation of the patients who present with an acute problem.
3. Recommend appropriate medical management based on evaluation of the patients who present with a chronic problem.
4. Determine level of care and disposition for patients seen in orthopedics.
5. Correlate physical findings with patient’s history in order to reach a differential diagnosis.
Professionalism
Upon successful completion of the rotation, the student should be able to:
1. Maintain a respectful attitude toward and work appropriately with preceptors, staff and patients at all times.
2. Recognize personal learning needs and limitations and seeks to rectify them.
3. Effectively use constructive criticism from preceptors and staff to aid in the development of the medical professional.
4. Maintain timely attendance, dress appropriately, and promptly complete assigned tasks.

Teaching Methods:
Teaching methods may include any or all of the following:
1. Direct teaching from preceptors
2. Hospital Grand Rounds
3. Reading assignments

ASSESSMENT CRITERIA
Student competency in the Office Orthopedics Rotation: Instructional objectives are determined based on the following criteria:

- **Written evaluation from preceptor** 40%
  The preceptor will monitor the student’s clinical skills and knowledge progression with a formative Mid-Rotation Evaluation, and will conduct a formal review of the student’s performance to determine the student’s competence with a summative End of Rotation Evaluation (EOR)

- **PAEA – EOR** 40%
- **Participation in clinical call back week at End of Rotation** 10%
- **Mandatory Electronic Entries and Written Assignments** 10%
  Includes 2 written assignments, weekly reports, student evaluation of preceptor, and patient encounters. EOR Evaluations and Student Evaluations of Preceptor/Site are due no later than 5 pm on the Wednesday following the completion of the rotation.

**TOTAL** 100%
This final course grade is a Pass/Fail based on passing the EOR exam with a minimum of a 70%, passing the Final EOR evaluation and completing all the required criteria as directed above.

In order to successfully pass this course the student must:

- Score a minimum of 3 or higher for each competency on the preceptor evaluation. Any students receiving 1’s or 2’s in the categories of medical knowledge, interpersonal/communication skills, technical and clinical skills, medical decision making, or professionalism may fail the rotation. The final decision will be based on an in-depth conversation with the preceptor, the Director of Clinical Education and the student.

- As of January 2018, the University of Dayton PA Program has transitioned to using the PAEA EOR exams. The students will take an EOR exam correlating with their current rotation. These exams will require a proctor during the exam, and with the exception of the Orthopedic and Elective EOR which are given in Examsoft, the testing will be completed through the PAEA Examdriver website. The cost of the first EOR exam for each rotation will be covered by the UD PA department. The PAEA EOR exams consist of a 120 question exam built on the blueprint and topic list. The exams are peer reviewed by PA educators and statistically validated. The scoring of the PAEA EOR exams are completed on a scaled scoring system. This is based on a nationwide performance of PA students for that specific examination. Those students who
EXPECTED CLINICAL COMPETENCIES:

There are multiple required areas of clinical competencies that will be documented longitudinally throughout the entire clinical year experience. Students are expected to encounter patients across the life span, as well as patient encounters regarding preventive health care, prenatal visits, emergent, acute, and chronic visits. Additionally, specific medical procedures (foley placement, pap smears, pelvic examination, suture, and IV placement) are required to be performed at a level necessary for clinical practice.

1. Students will perform appropriate history and physical examination of patients in the following age groups across the life span:
   - birth-18; 19-64, and over 65
2. Students will evaluate and recommend appropriate treatment for:
   - preventive health care encounters
   - prenatal encounters
   - emergent encounters
   - acute encounters
   - chronic encounters
   - pre-, intra-, post-operative encounters
   - well child encounters
3. Students will efficiently perform the following procedures:
   - foley placement
   - pap smears/pelvic examination
   - suture
   - IV placement/venipunctures

Students will track their progress in meeting these competencies by completing the “Clinical Encounter Booklet”. Competency cannot be ascertained by merely requiring a student to complete a certain amount of these encounters or procedures. Therefore, the Clinical Encounter Booklet contains the competencies and forms for preceptors to complete rating the student on his/her performance. Due to the large number of expected encounters for evaluating patients throughout the life span a portion of
each target number will be used to evaluate competency. Students’ progress will be reviewed during call back weeks, and if it is determined the student is at risk to not meet the competencies, he/she will meet with the Director of Clinical Education to address these deficiencies in order to meet the requirements prior to anticipated graduation. Please refer to the table below for details regarding the clinical competencies:

A passing score of a 3 or above on a Likert scale of (1-5) is required for each evaluated encounter to be considered passing.

<table>
<thead>
<tr>
<th>Clinical Competency</th>
<th>Target Number of Encounters</th>
<th>Minimum Number Evaluated for Competency</th>
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<tbody>
<tr>
<td>Life Span</td>
<td></td>
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</tr>
<tr>
<td>Birth – 18</td>
<td>25</td>
<td>5</td>
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<tr>
<td>Age 19-64</td>
<td>150</td>
<td>15</td>
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<tr>
<td>Age 65 and above</td>
<td>50</td>
<td>5</td>
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<tr>
<td>Health Care Settings</td>
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<tr>
<td>Preventive Health</td>
<td>150</td>
<td>15</td>
</tr>
<tr>
<td>Prenatal</td>
<td>5</td>
<td>5</td>
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<tr>
<td>Well Child Exams</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Emergent</td>
<td>150</td>
<td>15</td>
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<tr>
<td>Acute</td>
<td>150</td>
<td>15</td>
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<tr>
<td>Chronic</td>
<td>150</td>
<td>15</td>
</tr>
<tr>
<td>Pre, intra, post operative</td>
<td>50</td>
<td>15 (5 apiece)</td>
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<tr>
<td>Well child</td>
<td>5</td>
<td>5</td>
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<tr>
<td>Procedures</td>
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<tr>
<td>Foley placement</td>
<td>5</td>
<td>5</td>
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<tr>
<td>Pap smears</td>
<td>5</td>
<td>5</td>
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<tr>
<td>Pelvic examinations</td>
<td>5</td>
<td>5</td>
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<tr>
<td>Suturing</td>
<td>15</td>
<td>15</td>
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<tr>
<td>IV placement</td>
<td>5</td>
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</tbody>
</table>

**DISCLAIMER**

This syllabus is intended to give the student guidance regarding what will be covered during the clinical rotation and will be followed as closely as possible. However, the instructor reserves the right to modify, supplement, and make changes in the course as necessary to meet course objectives. Every effort will be made to adhere to the clinical schedule but alternations may be necessary due to unforeseen circumstances. Any changes will be announced via iTunes U or email communication.

**ACADEMIC INTEGRITY**

From The University of Dayton Academic Honor Code: A Commitment to Academic Integrity: Regardless of motive, student conduct that is academically dishonest, evidences lack of academic integrity or trustworthiness, or unfairly impinges upon the intellectual rights and privileges of others is prohibited. Cheating on examinations or other graded evaluations consists of willfully copying or attempting to consult a notebook, textbook, or any other source of information not authorized by the instructor; willfully aiding, receiving aid or attempting to aid or receive aid from another student during an examination or other evaluation; obtaining or attempting to obtain copies of any part of an examination or other evaluation (without permission on the instructor) before it is given; having another person take the exam; or any act which violates or attempts to violate the stated conditions of an examination or other
evaluation. Cheating on an assignment consists of willfully copying or attempting to copy all or part of another student’s assignment or having someone else complete the assignment when class assignments are such that students are expected to complete the assignment on their own. It is the responsibility of the student to consult with the instructor concerning what constitutes permissible collaboration and what materials are allowed to be consulted.

**PLAGIARISM STATEMENT**
Plagiarism is defined in the University of Dayton Student Handbook.

Plagiarism involves:
- Quoting directly from any source of material including other students’ work and materials from research consultants without appropriately citing the source and identifying the quote
- Knowingly citing an incorrect source
- Using ideas (other than information that is common knowledge) from any course of material including other students’ work and materials from research consultants without citing the source and identifying the borrowed material/ideas
- Faculty may establish additional guidelines for plagiarism – ignorance is no excuse for plagiarism. Students should be aware of their own responsibilities in appropriately quoting and citing sources used.

Additional information on plagiarism is available through the UD Roesch Library website (http:library.udayton.edu/faqs/howto/plagiarism.php).

Students should be aware that the University has access to software designed to detect plagiarized passages and work. This software will be applied randomly or at the instructor’s discretion. Detection of plagiarized passages or work can result in disciplinary action.

**STUDENTS WITH DISABILITIES**
If you anticipate or experience physical or academic barriers based on disability, please let me know immediately so that we can discuss options. You are also welcome to contact the LTC's Office of Learning Resources (OLR) to discuss reasonable accommodations. Please contact OLR at 937-229-2066 (TTY 937-229-2059 for deaf/hard of hearing), by email at disabilityservices@udayton.edu or stop by OLR in the LTC, room 023 Roesch Library. If you have an Accommodation Letter provided by OLR, please contact me to discuss. If you need assistance accessing print material including textbooks and electronic material such as PDF documents, please review the OLR website information about alternative formats under Disability Resources.

**ON CAMPUS LEARNING SUPPORT**
The University of Dayton's Office of Learning Resources (OLR) is a free service for all students seeking to perform their best academically. OLR offers a variety of personalized and structured resources that help students achieve academic excellence, such as tutoring, academic coaching (test taking strategies, time management counseling, and study techniques), Supplemental Instruction (SI), services for international students, and writing support. OLR is located on the ground floor of Roesch Library. If you wish to request a tutor, you must go to go.udayton.edu/tutoring and follow the given instructions. Please contact OLR at 937-229-2066 or learningresources@udayton.edu if you have any questions.
Exam Topic List

The lists below are taken from the PAEA End of Rotation Exam, suggested topic list to study for both the rotation and for the end of rotation exam. This list mirrors the NCCPA blueprint topics and will therefore help prepare students for a successful completion of the PANCE.

Hyperlinks to Orthobullets and Medbullets (Hold Control and Click link)  Updated 6/22/17

Disorders of the Shoulder

- Shoulder Exam
- Traumatic Anterior Shoulder Instability (TUBS)
- Posterior Instability/Posterior Dislocation
- Multidirectional Shoulder Instability (MDI)
- Rotator Cuff Tears
- Slap Lesion
- Adhesive Capsulitis Frozen Shoulder
- Proximal Humerus Fractures

Disorders of the Forearm/Wrist/Hand

- Physical Exam of the Hand
- Jersey Finger
- Mallet Finger
- Trigger Finger
- De Quervain’s Tenosynovitis
- Scaphoid Fracture
- Carpal Tunnel Syndrome
- Distal Radius Fractures

Disorders of the Back/Spine

- Neck and Upper Extremity Spine Exam
- Lower Extremity Spine and Neuro Exam
- Low Back Pain Introduction
- Ankylosing Spondylitis
- Cauda Equina Syndrome
- Lumbar Disc Herniation
- Kyphosis
- Scoliosis
- Spinal Stenosis

Disorders of the Hip
Developmental Dysplasia of the Hip
Slipped Capital Femoral Epiphysis
Hip Dislocation
Femoral Neck Fractures
Intertrochanteric Fractures
Avascular Necrosis

**Disorders of the Knee**

- History and Physical Exam
- Meniscal Injury
- ACL Tear
- Patellar Instability
- Osgood Schlatters Disease (Tibial Tubercle Apophysitis)
- Knee Dislocation
- Tibial Plateau Fracture

**Disorders of Ankle/Foot**

- Foot Anatomy and Biomechanics
- High Ankle Sprains
- Low Ankle Sprains
- 5th Metatarsal Base Fractures
- Diabetic Foot Ulcers

**Arthritis**

- Knee Arthritis
- Hip Osteoarthritis
- Hip Osteonecrosis

**Rheumatologic Conditions**

- Gout
- Pseudogout (CPPD)
- Juvenile Idiopathic Arthritis (JIA)
- Polyarteritis Nodosa (PAN)
- Dermatomyositis / Polymyositis
- Polymyalgia Rheumatica
- Reactive Arthritis (Reiter's syndrome)
- Rheumatoid Arthritis
- Systemic Lupus Erythematosus (SLE)
- Fibromyalgia
- Systemic sclerosis (Scleroderma)
- Sjögren Syndrome

**Compartment Syndrome**

- Hand and Forearm Compartment Syndrome
• Leg Compartment Syndrome

Bone Metabolism

• Osteoporosis and Osteopenia

Infectious Diseases

• Infectious Diseases In Athletes
• Antibiotic Classification And Mechanism
• Open Fractures Management
• Acute/chronic Osteomyelitis
• Septic Arthritis

Neoplastic Diseases

• Bone Cysts/Tumors
• Ganglion

DATE OF SYLLABUS REVISION: 12/3/2018, clinical committee