

Harrogate Physician Assistant Program

Course Descriptions

PAS-500 : Intro Phys Assist Profession

Credits 1.0

This course is designed to introduce the student to the inner workings of the PA profession: its history, development, organizations, current trends in the profession, the physician/PA team, professionalism, patient consent, HIPAA, credentialing, and licensure. This course also explores cultural issues, patient care, quality assurance, and risk management.

Prerequisite(s): Matriculation into the LMU-SMS PA Program

PAS-505 : Pharmacology

Credits 1.0

This course will introduce students to the general principles of pharmacology (pharmacokinetics, pharmacotherapy, and pharmacodynamics). The focus will be on the basic science principles that provide the foundation for clinical pharmacology and pharmacotherapeutics. The course will also review medical microbiology, human biochemistry, and physiology related to pharmacokinetics and pharmacodynamics. The course will be delivered as a blend of self-directed learning through lectures and/or readings and small group activities formulated to apply basic science concepts in solving clinical problems.

Prerequisite(s): Matriculation into the LMU-SMS PA Program

PAS-510 : Anatomy

Credits 5.0

This course is focused on the gross human anatomy presented in a regional approach. These six major body regions consist of the lower limb and back, upper limb, thorax, abdomen, pelvis, and head and neck. Lectures, tutorials, and computer-aided instruction will be provided throughout the course. Students will work with prosections in the anatomy laboratory. Each student is expected to learn anatomical terminology and three-dimensional and radiological anatomy. Throughout the course, students will be challenged to relate anatomy to the solution of clinical problems, which is an integral part of the anatomy curriculum. Students will be evaluated by a series of written and laboratory practical examinations.

Prerequisite(s): Matriculation into the LMU-SMS PA Program

PAS-515 : Physiology/Pathophysiology I

Credits 3.0

This is the first of three courses covering human physiology and pathophysiology. Specifically, this course covers the normal physiologic concepts, mechanisms, and relevant anatomy involved in the healthy individual. In some cases, pathophysiology, disease mechanisms, and presentation will also be discussed to add additional layers of context to the material and how it relates to the material presented in concomitant and subsequent courses. Additional clinical correlate and exam sessions will also be required components. Individual study and group work/presentations will be required. Time management, a high level of organization, teamwork, and self-motivation are essential to success in this course.

Prerequisite(s): Matriculation into the LMU-SMS PA Program

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PAS-516 : Physiology/Pathophysiology II **Credits 2.0**

This is the second of a three-course series in Physiology and Pathophysiology. In this second course, students will build on and apply their knowledge to analyze the pathophysiology of the following systems: dermatologic; eyes, ears, nose, and throat; endocrine; cardiovascular; and pulmonary. This course runs in parallel with Pharmacology/Pharmacotherapy I (PAS 535) and Clinical Medicine I (PAS 550), covers the same organ systems and is designed to lay the foundation for those courses.

Prerequisite(s): PAS 500, 505, 510, 515, 520, and 575

PAS-517 : Physiology/Pathophysiology III **Credits 2.0**

This is the third of a three-course series in Physiology and Pathophysiology. In this third course, students will build on and apply their knowledge to analyze the pathophysiology of the following systems: neurologic, gastrointestinal/nutrition, renal, musculoskeletal, and hematologic. This course runs parallel with Clinical Medicine II (PAS 551) and Pharmacology/Pharmacotherapy II (PAS 536), covers the same organ systems, and is designed to lay the foundation for those courses.

Prerequisite(s): PAS 500, 505, 510, 515, 520, and 575

PAS-520 : Clinical Assessment and Technical Skills I **Credits 3.0**

This course introduces the student to patient history taking, communication skills, and a variety of clinical and procedural skills. Students will begin the course by utilizing medical diagnostic equipment as they develop the skills needed to perform complete and focused physical examinations. Students will examine both assigned lab partners and simulated patients to gain the skills and knowledge to perform a thorough history and physical examination. Students will have an opportunity to practice procedural skills during laboratory sessions.

Prerequisite(s): Matriculation into the LMU-Harrogate PA Program

PAS-521 : Clinical Assessment and Technical Skills II **Credits 3.0**

This course is a continuation of Clinical Assessment and Technical Skills I. Students will learn additional components of physical examination, recognize abnormal and normal findings, and communicate the information in oral and written formats. Students will examine assigned lab partners and simulated patients to gain the skills and knowledge to perform a thorough history and physical examination. Taught in lecture, small group and lab formats. Students will have opportunity to practice procedural skills during lab sessions.

Prerequisites: PAS 500, 505, 510, 515, 520, and 575

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PAS-525 : Med Law, Ethics, Health Care Delivery Credits 1.0

This course is designed to provide fundamental knowledge of the structure and function of the U.S. healthcare delivery system, its medical laws, and the ethical theories and issues associated as they apply to the PA and PA/physician team. Issues discussed will include reimbursement, inequality in accessing healthcare issues, healthcare policies, and the roles of the different members of the healthcare professional team.

Prerequisite(s): PAS 500, 505, 510, 515, 516, 517, 520, 521, 535, 536, 545, 550, 551, 560, and 575

PAS-535: Pharmacology/Pharmacotherapeutics I Credits 2.0

The focus of this course is basic pharmacology and pharmacotherapeutics of selected drug classes. The course runs parallel to Physiology/Pathophysiology II (PAS 516) and Clinical Medicine I (PAS 550) courses and is designed to provide a background understanding of medication actions in health and disease.

Prerequisites: Successful completion of PAS 500, 505, 510, 515, 520, and 575.

PAS-536: Pharmacology/Pharmacotherapeutics II Credits 2.0

The focus of this course is basic pharmacology and pharmacotherapeutics of selected drug classes. The course runs parallel to Physiology/Pathophysiology II (PAS 516) and Clinical Medicine I (PAS 550) courses and is designed to provide a background understanding of medication actions in health and disease.

Prerequisites: Successful completion of PAS 500, 505, 510, 515, 520, and 575.

PAS-540 : Behavioral Medicine Credits 2.0

This course provides students with tools to evaluate, diagnose, and manage psychiatric conditions. Students will gain an appreciation for the Diagnostic and Statistical Manual (DSM) classifications of mental illness as well as the importance of timely referrals to other healthcare professionals. Information will be provided on behavioral issues that impact health, the genetic and environmental aspects of behavioral disorders, etiology and treatment of substance abuse, responses and coping mechanisms for stress, growth and development, life cycle development, personality development, human sexuality, death and dying, and bereavement.

Prerequisites: PAS 530, PAS 550, PAS 535.

PAS-545 : Clinical Assessment and Technical Skills III Credits 3.0

This course is a continuation of Clinical Assessment and Technical Skills II. Students will learn additional components of the physical examination, recognize abnormal and normal findings, and communicate the information in oral and written formats. Students will examine assigned lab partners and simulated patients to gain the skills and knowledge to perform a thorough history and physical examination. This course is taught in lecture, small group and laboratory formats. Students will have an opportunity to practice procedural skills during laboratory sessions.

Prerequisites: PAS 500, 505, 510, 515, 516, 520, 521, 535, 550, 560, and 575

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PAS-546 : Clinical Assessment and Technical Skills IV

Credits 3.0

This course is a continuation of Clinical Assessment and Technical Skills III. Students will learn additional components of the physical examination, recognize abnormal and normal findings, and communicate the information in oral and written formats. Students will examine assigned lab partners and simulated patients to gain the skills and knowledge to perform a thorough history and physical examination. This course is taught in lecture, small group, & lab formats. Students will have an opportunity to practice procedural skills during lab sessions.

Prerequisites: PAS 500, 505, 510, 515, 516, 517, 520, 521, 535, 536, 545, 550, 551, 560, and 575.

PAS-550 : Clinical Medicine I

Credits 9.5

This is the first course in a (3) three-part series where students will comprehensively study clinical medicine focusing on each body system in a modular format. Each module covers the anatomy, physiology, pathophysiology, etiology, clinical presentation, abnormal physical examination findings, patient assessment, differential diagnosis, diagnostic workup, and complete treatment plan for acute and chronic conditions including patient education and preventative care. The body systems covered in this semester include: dermatologic; eyes, ears, nose, and throat; endocrine; cardiovascular; and pulmonary.

Prerequisites: PAS 500, 505, 510, 515, 520, and 575

PAS-551 : Clinical Medicine II

Credits 9.5

This is the second course in a (3) three-part series where students will comprehensively study clinical medicine focusing on each body system in a modular format. Each module covers the anatomy, physiology, pathophysiology, etiology, clinical presentation, abnormal physical examination findings, patient assessment, differential diagnosis, diagnostic workup, and complete treatment plan for acute and chronic conditions including patient education and preventative care. The body systems covered in this semester include: neurologic, gastrointestinal/nutrition, renal, musculoskeletal, and hematologic.

Prerequisites: PAS 500, 505, 510, 515, 516, 520, 521, 535, 550, 560, and 575

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PAS-552 : Clinical Medicine III

Credits 5.0

This is the third course in a (3) three-part series where students will comprehensively study clinical medicine focusing on each body system in a modular format. Each module covers the anatomy, physiology, pathophysiology, etiology, clinical presentation, abnormal physical examination findings, patient assessment, differential diagnosis, diagnostic workup, and complete treatment plan for acute and chronic conditions including patient education and preventative care. The body systems covered in this semester include: infectious diseases, genitourinary, reproductive, and special populations, to include pediatrics and geriatrics.

Prerequisites: PAS 500, 505, 510, 515, 516, 517, 520, 521, 535, 536, 545, 550, 551, 560, and 575

PAS-560 : Research Methods

Credits 2.0

This course emphasizes the incorporation of evidence-based medicine, through evaluation and interpretation of current research, into clinical practice. Students will become familiar with research methodology and various forms of research presentation. Methods for critically appraising medical literature and strategies for keeping current with new medical findings are stressed throughout the course. Additionally, students will be instructed on how to complete poster presentations, clinical application papers and research papers.

Prerequisite(s): PAS 500, 505, 510, 515, 520, and 575

PAS-565 : Surgery and Emergency Medicine

Credits 2.0

In PAS 565 (Surgery/Emergency Medicine), students will learn the epidemiology, etiology, pathophysiology, clinical presentation, diagnostic evaluation, and management of common surgical conditions and emergent medical conditions. Students will learn the important concepts necessary for pre-, intra-, and post-operative care of surgical patients. Students will also learn how to prioritize the evaluation and management of patients presenting to the Emergency Department.

Prerequisite(s): PAS 500, 505, 510, 515, 516, 517, 520, 521, 535, 536, 545, 550, 551, 560, and 575

PAS-575 : Public Health Issues

Credits 2.0

This course introduces students to public health initiatives unique to the United States, specifically rural Appalachia. Health communication and cultural competency will be discussed as it applies to public health initiatives. Students will identify community resources and health services that benefit individual patients and the community.

Prerequisite(s): Matriculation

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PAS-600 : Capstone Project

Credits 4.0

This course is designed to enable PA students to interpret research, write scholarly papers on approved topics in clinical medicine, and do various other activities, including obtaining certifications and participation in continuing medical education, which leads to professional development of the student. This course will encompass all the summative activities required for graduation, including an End of Curriculum Examination, OSCE, and Skills Stations.

Prerequisite(s): PAS 500, 505, 510, 515, 516, 517, 520, 521, 525, 535, 536, 545, 546, 550, 551, 552, 560, 565 and 575

PAS-610 : Family Medicine

Credits 8.0

This is a required 8-week rotation in Family practice under the supervision of a clinical site preceptor. The student will gain experience and be able to integrate the knowledge and skills learned during the didactic phase. Students will interact with patients and their families, order and interpret lab and diagnostic tests, evaluate, and manage patients effectively. Students will have the opportunity to manage acute and chronic care in addition to patient education and increase their knowledge in the use of psychoactive pharmaceuticals. (Minimum of 240 hours for rotation)

Prerequisite(s): PAS 500, 505, 510, 515, 516, 517, 520, 521, 525, 535, 536, 545, 546, 550, 551, 552, 560, 565 and 575

PAS-620 : Internal Medicine

Credits 8.0

This is a required 8-week rotation in internal medicine under the supervision of a clinical site preceptor. The student will gain experience and be able to integrate the knowledge and skills learned during the didactic phase to interact with patients and their families. Students will be able to order and interpret lab and diagnostic tests, evaluate and educate patients about health maintenance, review patient records, and evaluate established patients for their continual medical care. Students will have the opportunity to manage acute and chronic care in addition to patient education. Students could experience patient contact in both inpatient and outpatient settings. The student will be able to recognize emergent, acute, and chronic diagnoses and participate in the necessary continuity of care for each. (Minimum of 240 hours for rotation)

Prerequisite(s): PAS 500, 505, 510, 515, 516, 517, 520, 521, 525, 535, 536, 545, 546, 550, 551, 552, 560, 565 and 575

PAS-625 : Behavioral Medicine

Credits 4.0

This is a required 4-week rotation under the supervision of the site preceptor in which students will have the opportunity to learn about behavioral health conditions and interact with patients and their families. The student will gain experience in interviewing and assessing the behavioral health patient, ordering and interpreting lab and diagnostic tests, evaluating, and managing patients in a behavioral health setting. (Minimum of 120 hours for rotation)

Prerequisite(s): PAS 500, 505, 510, 515, 516, 517, 520, 521, 525, 535, 536, 545, 546, 550, 551, 552, 560, 565 and 575

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PAS-630 : Emergency Medicine

Credits 4.0

This is a required 4-week rotation under the supervision of the site preceptor. The student will have the opportunity to evaluate and treat a wide variety of urgent, emergent, and life-threatening conditions. The student will learn to triage patients, interact with patients' families, and become more proficient at taking rapid, accurate histories, performing physical examinations, ordering appropriate diagnostic tests, and formulating a treatment plan. The student will have the opportunity to improve their oral presentations in a fast-paced environment. This rotation will allow the student to practice many clinical procedures such as suturing, endotracheal intubation, and ACLS. (Minimum of 120 hours for rotation)

Prerequisite(s): PAS 500, 505, 510, 515, 516, 517, 520, 521, 525, 535, 536, 545, 546, 550, 551, 552, 560, 565 and 575

PAS-640 : Surgery

Credits 4.0

This is a required 4-week rotation in surgery under the supervision of a clinical site preceptor. The student will participate in pre-, intra, and postoperative care. Students will gain experience evaluating acutely ill and elective surgical patients, assisting in surgery, and identifying indications, contraindications, and potential complications. (Minimum of 120 hours for rotation)

Prerequisite(s): PAS 500, 505, 510, 515, 516, 517, 520, 521, 525, 535, 536, 545, 546, 550, 551, 552, 560, 565 and 575

PAS-650 : Pediatrics

Credits 4.0

This is a required 4-week rotation in pediatrics under the supervision of a clinical site preceptor. The student will refine their history taking and physical examination skills in the pediatric population, perform well child checks, evaluate children for developmental milestones, and diagnose and treat acute and chronic illnesses in children and adolescents. The student will have the opportunity to educate and counsel the patient and their parent or guardian. (Minimum of 120 hours for rotation)

Prerequisite(s): PAS 500, 505, 510, 515, 516, 517, 520, 521, 525, 535, 536, 545, 546, 550, 551, 552, 560, 565 and 575

PAS-670 : Women's Health

Credits 4.0

This is a required 4-week rotation under the supervision of the site preceptor in which students will have the opportunity to see a wide variety of concerns related to the female reproductive system. Students will further develop their knowledge of assessment and treatment, preventive care, and screening recommendations for women's health issues. This rotation will also provide the opportunity for the student to become more familiar with women's health exams, pregnancy, menopause, and infertility. The student will have opportunities to participate in pre- and post-natal care. (Minimum of 120 hours for rotation)

Prerequisite(s): PAS 500, 505, 510, 515, 516, 517, 520, 521, 525, 535, 536, 545, 546, 550, 551, 552, 560, 565 and 575

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PAS-680: Elective I

Credits 4.0

PAS 680/PAS 685

Elective I/Elective II

(Cardiology, Cardiovascular Surgery, Critical Care, Dermatology, Gastroenterology, Gynecology, Hematology Oncology, Inpatient Neurology, Nephrology, Neurosurgery, Pediatric Emergency Medicine, Pediatric, Internal Medicine, Urgent Care, Urology, Vascular Surgery)

This is a required 4-week rotation in a field chosen by the student. This experience allows the student to enhance their knowledge and skills in a particular specialty of medicine. The site must be approved by the Director of Clinical Education and will optimally be scheduled later in the clinical year. (Minimum of 120 hours for rotation).

Prerequisite(s): PAS 500, 505, 510, 515, 516, 517, 520, 521, 525, 535, 536, 545, 546, 550, 551, 552, 560, 565 and 575

PAS 680/PAS 685

Credits 4.0

Elective I/Elective II

Community Health for the Underserved

In this course, students will explore barriers to the healthcare of medically underserved populations and discuss how outreach and intervention projects can overcome those barriers. Students will research community initiatives to serve medically underserved patients and discover how they can become actively involved in impacting the lives of medically underserved patients. The course will allow students to further develop medical outreach skills by participating in clinical outreach projects and clinics. Students will also complete readings on topics relevant to outreach activities. (Minimum of 120 hours for rotation).

Prerequisites: PAS 500, 505, 510, 515, 516, 517, 520, 521, 525, 535, 536, 545, 546, 550, 551, 552, 560, 565 and 575. Good academic standing within the program.

PAS 680/PAS 685

Credits 4.0

Elective I/Elective II

Family Medicine Elective with a PANCE Prep Focus

This is a required 4-week rotation in Family Medicine supervised by a clinical site preceptor. The student will gain experience and be able to integrate the knowledge and skills learned during the didactic phase to interact with patients and their families. Students will be able to evaluate and manage preventative, acute, and chronic care conditions. (Minimum of 120 hours for rotation)

Prerequisites: PAS 500, 505, 510, 515, 516, 517, 520, 521, 525, 535, 536, 545, 546, 550, 551, 552, 560, 565 and 575.

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PAS-685 : Elective II

Credits 4.0

PAS 680/PAS 685

Elective I/Elective II

(Cardiology, Cardiovascular Surgery, Critical Care, Dermatology, Gastroenterology, Gynecology, Hematology Oncology, Inpatient Neurology, Nephrology, Neurosurgery, Pediatric Emergency Medicine, Pediatric Internal Medicine, Urgent Care, Urology, Vascular Surgery)

This is a required 4-week rotation in a field chosen by the student. This experience allows the student to enhance their knowledge and skills in a particular specialty of medicine. The site must be approved by the Director of Clinical Education and will optimally be scheduled later in the clinical year. (Minimum of 120 hours for rotation).

Prerequisite(s): PAS 500, 505, 510, 515, 516, 517, 520, 521, 525, 535, 536, 545, 546, 550, 551, 552, 560, 565 and 575

PAS 680/PAS 685

Credits 4.0

Elective I/Elective II

Community Health for the Underserved

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Prerequisites: PAS 500, 505, 510, 515, 516, 517, 520, 521, 525, 535, 536, 545, 546, 550, 551, 552, 560, 565 and 575. Good academic standing within the program.

PAS 680/PAS 685

Credits 4.0

Elective I/Elective II

Family Medicine Elective with a PANCE Prep Focus

This is a required 4-week rotation in Family Medicine supervised by a clinical site preceptor. The student will gain experience and be able to integrate the knowledge and skills learned during the didactic phase to interact with patients and their families. Students will be able to evaluate and manage preventative, acute, and chronic care conditions. (Minimum of 120 hours for rotation)

Prerequisites: PAS 500, 505, 510, 515, 516, 517, 520, 521, 525, 535, 536, 545, 546, 550, 551, 552, 560, 565 and 575.

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PAS-690 : Orthopedics

Credits 4.0

This is a required 4-week rotation in orthopedics under the supervision of the site preceptor. Students will have the opportunity to develop skills to care for patients with orthopedic problems that can be found in the primary care setting. Students will have the opportunity to participate in pre-, intra-, and postoperative care. (Minimum of 120 hours for rotation).

Prerequisite(s): PAS 500, 505, 510, 515, 516, 517, 520, 521, 525, 535, 536, 545, 546, 550, 551, 552, 560, 565 and 575