Department of Physician Assistant Studies

Chairperson: Mary Jo Wiemiller, PA-C, M.S.
Department of Physician Assistant Studies (http://www.marquette.edu/physician-assistant)

Mission

Our mission is to develop physician assistants in the Jesuit tradition who realize their full potential as excellent clinicians and national leaders. We pursue this ad majorem Dei gloriam, for the greater glory of God, and the benefit of the human community.

An ideal graduate of our program is well-rounded, clinically and intellectually competent, committed to professional growth, spiritually centered, compassionate and dedicated to doing justice in generous service to others. Our graduates will be leaders in promoting health, wellness and preventing disease in diverse healthcare settings and in their communities.

Department of Physician Assistant Studies Goals

Goal 1: The program supports students academically during their physician assistant training in order for them to achieve their academic and professional goals.

• Students are challenged with a rigorous medical curriculum while being supported by the faculty and administration through a low student to faculty ratio, academic advising and continued support.

Goal 2: The program recognizes students learn from a variety of teaching methods and employs these methods including: lectures, problem-based learning, small group experiences, standardized patient experiences, clinical rotations and self-reflection exercises. Starting with a thoughtful and fair admission process and continued support to the students throughout the program, we maintain a low attrition and deceleration rate.

Goal 3: Graduates of the program strive for a first-time passing rate of 100% on the PANCE exam.

Goal 4: Graduates of the program strive for a 100% employment rate by six months in each graduating class.

Goal 5: Prepare our graduates to promote the PA profession through their leadership, ethical practice, scholarship and service.

• Graduates are leaders of the profession at the local, state, and national level.

• Graduates provide compassionate, patient-centered care to a diverse population of patients.

• Graduates foster integrity through accountability to patients, society, and the PA Profession.

• Graduates meet all regulatory requirements for licensure and maintain their professional certification through completion of ongoing professional development.

STUDENT EDUCATIONAL LEARNING OUTCOMES

MU PA Learning Outcome #1: General Physical Exam:

Students will perform a comprehensive physical examination on the geriatric patient; adult patient; and pediatric patients including toddlers and newborns. The physical examination system components include:

Vital signs, General appearance, Skin, Head/Eye/Ear/Nose/Throat, Neck, Cardiac, Pulmonary, Abdominal, Genitourinary including rectal examination, pelvic examination in women and prostate examination in men, Peripheral Vascular, Neurologic, Musculoskeletal and Psychiatric.

MU PA Learning Outcome #2: Complete History

Students will demonstrate the ability to obtain a complete medical history on pediatric, adult and geriatric patients including the following components: Complete History, Medications, Allergies with Reaction, Family History and Health Maintenance.

MU PA Learning Outcome #3: Documentation of Complete History and Physical Exam

Students will demonstrate the ability to properly document a complete medical history and physical exam on pediatric, adult and geriatric patients inclusive of the above components.

MU PA Learning Outcome #4: Differential Diagnosis:

Students will formulate an appropriate differential diagnosis based on information obtained through a focused history and physical examination.
MU PA Learning Outcome #5: Interpersonal Communication - Patient Education:  
Students will verbally communicate patient educational information. They will do so with clarity and accuracy at a level appropriate for the patient’s health literacy.

MU PA Learning Outcome #6: Interpersonal Communication - Health Care Team Member:  
Students will communicate effectively and work collaboratively with other members of the health care team.

MU PA Learning Outcome #7: Professionalism:  
Students will demonstrate professionalism in their clinical interactions with patients, faculty and mentors and colleagues.

MU PA Learning Outcome #8: Practice Based Learning:  
Students will demonstrate oral and written proficiency in the presentation, critique and synthesis of evidence based medical and scientific data for the purpose of practice – based improvements.

MU PA Learning Outcome #9: Systems Based Practice:  
Students will demonstrate proficiency in knowledge of patient safety and procedural safety while partnering with supervising physicians and other health care providers. They will promote a safe environment for patient care recognizing systems based factors that may negatively impact patient care.

MU PA Learning Outcome #10: Patient Care:  
Students will demonstrate sound clinical decision making skills in their abilities to order and interpret diagnostic studies and to formulate patient management plans across the lifespan using current evidence based medicine.

Undergraduate Admission Requirements

Students can apply for admission into the Physician Assistant Studies program as early as the fall term of their sophomore year. They are required to complete the two-year, pre-PA phase of the Physician Assistant Studies program and must complete the appropriate prerequisite courses that makes them eligible for a degree in biomedical sciences within the PA program. Following acceptance into the PA program, students follow the curriculum as outlined for the three-year Physician Assistant Studies Program.

Criteria to be considered an Internal PA Candidate:

Candidates must be on track for a Biomedical Sciences degree following the published pre-PA curriculum. Undergraduate applicants who transfer from another institution must have a minimum of 30 total credit hours (2 semesters), including at least 12 credits of science prerequisites for the PA program completed at Marquette and applied toward the undergraduate biomedical science major prior to submission of the PA application. All internal applicants must be current with their biomedical science undergraduate degree, as outlined by their undergraduate biomedical sciences adviser. Undergraduate transfer students interested in applying must contact the assistant dean at the College of Health Sciences Dean’s Office (http://www.marquette.edu/health-sciences/staff.shtml) for course approvals and advising.

The intensity of the program and the skills necessary for practice as a physician assistant require the program to seek applicants with an excellent academic background, along with strong interpersonal skills and maturity. Prior health care experience is also an indicator of a career commitment to clinical practice. The program’s admission process considers each applicant’s strengths and select for competitive candidates best qualified to meet the program’s mission.

Selection factors considered in the admission process include the following:

1. Minimum cumulative GPA of 3.000 or greater, science GPA, and Science Quality Points (an assessment of quantity and performance in science course work), as calculated by the centralized application system (CASPA).
2. Motivation, maturity, ability to work with people and suitability for clinical practice.
3. Minimum of two hundred patient contact hours or other health related experience. All hours must be submitted and documented on the CASPA application. Additional hours after submission are not counted toward the total. Note: healthcare shadowing does not count toward this requirement.
4. Knowledge of the PA profession and the profession’s role in the health care system.
5. Graduate Record Exam scores for applicants who would enter the PA program with a completed bachelor's degree; SAT or ACT scores for applicants who would enter the program without a completed bachelor’s degree.
6. Three letters of recommendation.
7. Personal interviews.

Graduate Admission Requirements

1. Minimum cumulative total GPA of 3.000 as calculated by CASPA. (https://portal.casponline.org/caspaHelpPages/about-caspaoverview)
2. GRE scores (Designated Institution code 5872) - It is recommended that applicants complete the GRE by August 1. Official scores must be received by the program by September 1.
3. Completion of the following prerequisite course work at time of application: *
   • 2 semesters of biological sciences (biology)
   • 1-2 semesters (minimum of 4 credits total) of inorganic (General) chemistry, with lab
   • 1 semester of biochemistry
     • Must be at least 3 credits. Marquette University’s College of Health Sciences offers BISC 3213 Biochemistry (4 credits). If not taking the biochemistry course at Marquette, the course should contain similar content as BISC 3213 Biochemistry.
     • Note: The Biochemistry course must be completed at a regionally accredited institution.
   • 1 semester of biochemistry

4. Additional prerequisite course work that may be in progress at time of application:
   • 1 semester of social science (psychology recommended, AP credit accepted)
   • 1 semester of statistics (AP credit accepted)
   • 1 course in medical terminology

It is highly recommended that the prerequisite course work is completed within the last 5 years and taken at a 4 year regionally accredited institution. All prerequisite course work must be completed with a grade of C or above. C- or below are not satisfactory grades.

1. Minimum of 200 hours of patient contact and other health care experience.
   • The hours can be either volunteer or paid direct patient care. The minimum 200 hours must be completed at the time an application is submitted with a contact number of a supervisor or volunteer office for verification. Note: Healthcare shadowing hours do not count towards this requirement.

2. Three (3) letters of recommendation are required (submitted via CASPA).
3. Personal interviews.

**International Student REQUIREMENTS**

International students must meet all graduate admission requirements in addition to the following:

A transcript evaluation is required for applicants who attended university outside the United States. Below are acceptable foreign transcript evaluation services.
   • Educational Credential Evaluators, Inc. www.ece.org (http://www.ece.org)
   • World Education Services, Inc. www.wes.org (http://www.wes.org)

Graduates of an international college or university are required to successfully complete at least nine semester hours of social-behavioral science courses, such as psychology or sociology, and twelve semester hours of upper division science courses at a regionally accredited four-year U.S. college or university. Online course work is not acceptable. International medical graduates must also acquire at least 200 patient contact hours in the U.S. by the time of application.

Applicants are required to take and submit the GRE.

Applicants whose native language is something other than English are also required to take the TOEFL internet-based test.

**Academic Regulations**

**Academic Progress**

To achieve satisfactory academic progress leading to promotion in the Physician Assistant Program, the student must achieve a GPA of 2.800 in each term (summer, fall, spring). In addition, the student may receive no single final grade of less than a C (2.000) for courses required for the MPAS degree. The PA program considers a grade below C (2.000) to represent unsatisfactory academic progress, including C-. Unsatisfactory academic progress may result in conditional promotion, student-initiated withdrawal from the program or dismissal from the program. Students who earn grades of C-, D+, D or below, or unsatisfactory grades (U, UNC, ADW, UW, WA or WF) in any course in the PA program may be dismissed. This may also lead to withdrawal of financial aid.

In the clinical portion of the program (third year) the term GPA is compiled from an aggregate of clinical rotation grades completed in that term (summer, fall, spring).

Students may not participate in Physician Assistant clinical rotations until they have successfully completed all the required courses in the didactic curriculum.

In addition, at intervals during each term and at its conclusion, the Progress and Promotion Committee reviews students’ progress. The committee determines whether students shall be promoted, conditionally promoted, (as described below); or be subject to other action as described earlier in this section. See the PA Program Didactic and Clinical Student Handbooks for the PA Program’s Policies and Procedures.

If remediation is required, students must satisfy all requirements of any remediation protocols in the defined time frame. These protocols are defined in the PA Program Didactic and Clinical Student Handbooks. If students do not meet the remediation requirements, they may be subject to dismissal with
College Academic Alert (CAA). All policies in the Student Handbooks are stricter than those outlined in the university general bulletins; therefore, the Handbooks supersede the university policies.

Counseling

Directing students to seek appropriate counseling is within the purview of the Progress and Promotion Committee (P&P Committee). In such cases, referrals are made to the PA Program's Academic Counseling Subcommittee. While it is advisable for students to seek assistance from instructors and faculty as a course proceeds, there may be circumstances where support is needed to understand certain concepts and to make up work lost for extraordinary reasons such as illness. The Academic Counseling Subcommittee can recommend students establish a collaborative plan with the faculty to complete selected course objectives and incomplete work. Students are notified of this recommendation by letter from the program director or the Academic Counseling Subcommittee. This letter remains a part of students' permanent file.

In specific situations involving financial or personal elements, the Progress and Promotion Committee may recommend outside resources be utilized to satisfy this category of promotion. When medical or psychiatric consultation is required or recommended, the P&P Committee respects patient/provider confidentiality. However, documentation of enrollment and/or completion may be required by the committee.

Warning Letter

A warning is a written letter to students for unacceptable academic progress during the term (usually at mid-term). A warning may come from the course instructor or the program director on behalf of the course instructor. The purpose of the warning letter is to make students aware of impending academic jeopardy. Warnings are reported to the Progress and Promotion Committee and program director for informational purposes. Students may also be placed on College Academic Alert (CAA) upon receipt of the warning letter.

Academic Censure (Dismissal/Probation/Academic Alert)

Overview

There are categories of student performance problems that can lead to academic censure. These problems may be identified at any point during the academic year, though a systematic review of all students' course grades is also conducted at the end of each academic term. The review of other, non-course grade problems is typically conducted on an individual basis as issues arise. A finding of significant problems in any of these areas can result in probation, suspension or dismissal, depending on the nature and severity of the problems identified. All of these statuses are maintained permanently on the academic record; only dismissal, however, appears permanently on Marquette University's official transcript. If students are reinstated following a dismissal, that notation also permanently appears on the official transcript. The statuses that appear permanently on the official transcript include those listed (in bold type) below:

- **Required to Withdraw for Academic Reasons (RWAR):** dismissal for deficient academic performance as described below.
- **Reinstated on Probation:** following successful appeal of academic dismissal.
- **Required to Withdraw for Professional Integrity Reasons (RWPI):** dismissal for violation of Professional Integrity standards as described below.
- **Required to Withdraw for Academic Misconduct (RWAM):** dismissal for violation of the academic honesty policy as outlined in the Academic Regulations section of this bulletin.

Academic Dismissal – Required to Withdraw for Academic Reasons (RWAR)

Health Science Professional Students (HESP) in the Master of Physician Assistant Studies Program must achieve a cumulative GPA of 2.800 by the end of the second term in the program and maintain a cumulative GPA of 2.800 each term thereafter. In addition, students are RWAR’d for any course required for the MPAS degree with a final grade below a C (C-, D+, D, F) or an unsatisfactory grade (U, UNC, ADW, WA or WF). The Office of the Registrar (OTR) and the Office of Student Financial Aid (OSFA) monitor the program academic requirements at the end of each term (fall, spring and summer). Students who do not meet these academic requirements are academically dismissed by the college (coded as RWAR by OTR) and their record coded as failure to maintain Satisfactory Academic Progress (SAP) (http://www.marquette.edu/mucentral/financialaid/resources_elig_standards.shtml) by the Office of Student Financial Aid (OSFA).

The college office communicates the RWAR and OSFA communicates the SAP via Marquette email. As per university email policy, students have the responsibility to monitor their email at all times.

Undergraduate students in the Physician Assistant Studies Program must meet requirements listed above to continue in the Physician Assistant Studies Program. Student that are not allowed to continue in the Physician Assistant Studies Program but remain in good standing at the university as undergraduate students, may be allowed to continue with their undergraduate degree course of study.

Satisfactory Academic Progress: there are other SAP conditions for which students are responsible and are applied to all students in this program, both professional and undergraduate. Refer to the complete SAP policy (http://www.marquette.edu/mucentral/financialaid/resources_elig_standards.shtml) on the OSFA website.
RWAR/SAP Appeal Process

Per the PA Student Handbook, all appeals to decisions made by the PA Progress and Promotion Committee for not meeting the Academic or Professional Standards of the program must be submitted in writing to the dean of the College of Health Sciences within three business days. This may be done by letter or emailed to the dean. At this time, the dean, or appointed designee, or a panel, hears the appeal.

Students subject to RWAR/SAP may appeal both RWAR/SAP by sending one form, which addresses both RWAR and SAP issues. The Academic Censure Appeal form is mandatory and located on the Marquette Central academic forms website (http://www.marquette.edu/mucentral/registrar/policy_forms.shtml). The form includes all of the required information students must submit to have their appeal reviewed.

- The form is submitted according to the instructions on the form for initial review for completeness. Completed appeal forms are then forwarded to the chair of the Department of Physician Assistant Studies. The department chair, in consultation with the Progress and Promotion Committee, has the final decision on all RWAR/SAP appeals.
- If the appeal is approved by the Progress and Promotion Committee, students may be decelerated or reinstated on probation and the Progress and Promotion Committee establishes an academic probation plan for them to regain their satisfactory academic and degree progress standing, and their eligibility for financial aid is restored.
- The plan must be measurable and ensure that students are able to meet Marquette’s SAP standards by a specific point in time. Plans include courses to be taken, expected grades and a time frame to complete the outlined objectives.
- The plan is monitored by the department (Progress and Promotion Committee).
- Should students not fulfill all of their academic obligations as outlined in the academic probation plan, their performance is evaluated by the committee and a determination is made as to whether the College Academic Alert (see below) process is implemented; however, they are again coded with SAP for that term.
- Students whose appeal is denied or do not appeal, are dropped from all classes in which they are subsequently registered.

Probation and College Academic Alert (CAA)

Academic performance is monitored carefully by the Progress and Promotion Committee of the Department of Physician Assistant Studies Program. Students failing to maintain steady progress or failing to demonstrate adequate academic progress at midterm, as defined earlier above, are barred from future registration in the program and placed on College Academic Alert (CAA).

Within a term where remediation is required, students who fail to comply with the remediation standards outlined in the PA Didactic and Clinical Student Handbooks are placed on College Academic Alert (CAA). All students where conditions of probation have been established are subject to Progress and Promotion Committee review and possible CAA action should they fail to fulfill the conditions. It is possible that students are barred from registration for academic reasons even though the student’s cumulative GPA exceeds 2.800. Students concerned about their academic progress should consult the remediation protocol and academic progress section defined in the PA Student Handbook.

Students placed on College Academic Alert cannot register for subsequent courses in the Physician Assistant Studies Program and are removed from any such classes for future terms in which they are registered. Students are notified of the Progress and Promotion Committee’s decision by email and of the appeal process. Undergraduate students who are not allowed to continue in the Physician Assistant Studies Program, but remain in good standing at the university, may be allowed to continue in their undergraduate degree course of study.

Academic Dismissal – Professional Integrity

Students may be dismissed from the Physician Assistant Studies program for failure to maintain professional integrity standards, which may include, but are not limited to:

1. Failure to comply with the Physician Assistant Studies Program Honor Code and Professional Code of Conduct.
2. Failure to comply with learning objectives set forth in a professional behavior learning contract between the student and the program.
3. Professional misconduct, including, but not limited to:
   a. Conduct that constitutes harassment, threats or abuse of, or discrimination against peers, faculty, patients or others.
   b. Provision of services at any point in the Physician Assistant Studies program while under the influence of an illegal substance and/or alcohol.
   d. Failure, during a clinical experience, to comply with the policies and procedures of the clinical facility.
   e. Failure to comply with the Physician Assistant Studies program departmental Policies and Procedures outlined in the student handbook.
   f. Failure to comply with the Physician Assistant Ethical Guidelines to Professional Conduct (www.nccpa.net and www.aapa.org).
4. Failure to complete their undergraduate degree by the end of the second spring term in the professional phase of the Physician Assistant degree; completion of the undergraduate degree occur before students proceed to the final Physician Assistant clinical year (summer, fall, spring).

Violation of the professional integrity requirements results in a hearing with the Progress and Promotion Committee. Findings of misconduct to self, faculty, the program, the university clinical placements and/or patients may result in failure in the assignment, failure in the course or dismissal from the program. For instances of dismissal from the program, a notation of “Required to Withdraw for Professional Integrity Reasons” appears on the permanent academic record and transcript.

Academic Dismissal - Academic Misconduct

Dismissal for academic misconduct (RWAM) is determined per the Academic Integrity policy (http://bulletin.marquette.edu/healthscienceprofessional/academicregulations/#academicintegrity) found in the Academic Regulations section of the Health Sciences Professional bulletin. Once this determination has been made, students are dismissed from the university. This action results in ineligibility to register at Marquette. Reinstatement criteria for students who are dismissed, if applicable, are outlined in the dismissal notice. If students are allowed to return to the university, a permanent notation of ‘Reinstated to the University’ appears on the academic record and Marquette’s official transcript.

Temporary Withdrawal from Program

Students who find it necessary to request a temporary withdrawal from the PA program must submit a written request to the program director.

The Progress and Promotion Committee may recommend, and must approve, the temporary withdrawal. The temporary withdrawal may be indicated under circumstances unique to specific problems students, however, the temporary withdrawal shall extend no longer than a single calendar year.

Normally, students are readmitted to the program at the end of their leave if the Progress and Promotion Committee believes the purpose of the temporary withdrawal has been successfully achieved. The committee may require students to repeat course work before reentry after a prolonged absence.

The Physician Assistant program must be completed in no more than four years. Therefore, if a second temporary withdrawal is requested, students may be dismissed from the program or required to reapply to the program.

Re-entry Policy

Students who find it necessary to withdraw from the Physician Assistant program may reenter at that level only with concurrence of the Progress and Promotion Committee and the program director, on a space-available and case-by-case basis.

Tuition/Financial Aid for Physician Assistant Studies program

Students enrolled in the Physician Assistant Studies program upon completion of their baccalaureate degree are moved into the professional division of Health Sciences and are no longer eligible for undergraduate financial aid.

Other Academic Regulations

For additional information on other College of Health Sciences regulations, see the College Academic Regulations (http://bulletin.marquette.edu/healthscienceprofessional/academicregulations) section of this bulletin.

Physician Assistant Studies

Typical Three-Year Professional Phase - Master’s of Physician Assistant Studies

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Total credit hours: 129

A master’s degree in physician assistant studies requires successful completion of minimum total credits of 129. This includes 32 credits of PHAS 7986 Internship in Physician Assistant Studies, 3 credits of PHAS 7887 Summative Clinical Assessment and 4 credits of PHAS 7997 Master’s Capstone Project. Required clinical clerkship experiences include family practice, internal medicine, emergency medicine, general surgery, pediatrics, women’s health, behavioral medicine and electives. PHAS 7986 Internship in Physician Assistant Studies may be offered for letter grade or S/U grading, as determined by the program.

Courses

PHAS 7050. Introduction to Medical History and Physical Examination. 4 cr. hrs.
Consists of two phases. The first portion of the course develops the student's interviewing skills eliciting a complete medical history. The second portion of the course instructs the student in the methods and modalities to complete an entire adult physical exam. At the conclusion of the course, the student is expected to be competent in eliciting a complete medical history and performing a physical exam, appropriately documenting the history and physical exam including all positive and negative findings. Medical terminology is reviewed throughout the course. Prereq: PHAS major; admitted to PA program.

PHAS 7080. Evidence-Based Practice. 2 cr. hrs.
Provides a practical approach to making sound medical decisions based on current evidence in medical literature. Using a series of didactic presentations, group exercises, independent inquiry and reading, students learn the basic principles of evidence-based medicine. Basic skills in accessing MEDLINE and other medical databases will be emphasized and practiced. Research principles, research ethics, and basic statistical analysis are introduced. Students use their foundation in EBM throughout their didactic and clinical education. Skills learned will be essential in formulating and completing the capstone project in the 3rd year of the physician assistant program. Prereq: PHAS major; admitted to PA program.

PHAS 7085. Science Writing. 2 cr. hrs.
Provides a practical approach to critically evaluating medical literature and an overview of the fundamentals of effective scientific writing. Instruction explores the process of writing and publishing scientific manuscripts while expanding on knowledge and skills from PHAS 7080. Effective small group teamwork will be emphasized to help build team problem-solving, professionalism, and leadership skills. The knowledge and skills obtained in this course will be essential for formulating and successfully completing the capstone project requirement in the third year of the physician assistant program. Prereq: PHAS 7080 and admitted to the PA program.

PHAS 7091. Clinical Medicine 1. 4 cr. hrs.
Provides a comprehensive presentation of the disease processes commonly encountered in clinical medicine, specifically the specialties of Cardiology and Dermatology, and Ear/Nose/Throat medicine. Organized by systems, clinical information is presented by core faculty and guest lecturers who work in a particular specialty, and are presented in conjunction with appropriate, correlative lectures and classes in anatomy, physiology, pharmacology, pathology, radiology, laboratory diagnostics, nutrition and patient education. Whenever possible the course is coordinated with the concurrent Clinical Decision-Making courses. Prereq: Admitted to the PA program.
PHAS 7092. Clinical Medicine 2. 4 cr. hrs.
Provides a comprehensive presentation of the disease processes commonly encountered in clinical medicine, specifically the specialties of Pulmonology, EENT, Immunology, Oncology, Endocrinology, and Medical Genetics. Organized by systems, clinical information is presented by core faculty and guest lecturers who work in a particular specialty, and are presented in conjunction with appropriate, correlative lectures and classes in anatomy, physiology, pharmacology, pathology, radiology, laboratory diagnostics, nutrition and patient education. Whenever possible the course is coordinated with the concurrent Clinical Decision-Making course. Prereq: PHAS 7091 and admitted to the PA program.

PHAS 7093. Clinical Medicine 3. 4-5 cr. hrs.
Provides a comprehensive presentation of the disease processes commonly encountered in clinical medicine, specifically the specialties of Hematology/Oncology, Gastroenterology, Neurology, and Psychiatry. Organized by systems, clinical information is presented by core faculty and guest lecturers who work in a particular specialty, and are presented in conjunction with appropriate, correlative lectures and classes in anatomy, physiology, pharmacology, pathology, radiology, laboratory diagnostics, nutrition and patient education. Whenever possible the course is coordinated with the concurrent Pharmacology and Clinical Decision-Making courses. Prereq: PHAS 7092 and admitted to the PA program.

PHAS 7094. Clinical Medicine 4. 6 cr. hrs.
Provides a comprehensive presentation of the disease processes commonly encountered in clinical medicine, specifically the specialties of Nephrology, Urology, Orthopedics, Rheumatology, Endocrinology, and Women's Health. Organized by systems, clinical information is presented by core faculty and guest lecturers who work in a particular specialty, and are presented in conjunction with appropriate, correlative lectures and classes in anatomy, physiology, pharmacology, pathology, radiology, laboratory diagnostics, nutrition and patient education. Whenever possible the course is coordinated with the concurrent Pharmacology and Clinical Decision-Making courses. Prereq: PHAS 7093 and admitted to the PA program.

PHAS 7095. Public Health. 2 cr. hrs.
Studies the overview of public health system and commonly encountered chronic diseases that have public health implications. Topics include an overview of communicable & noncommunicable disease, violence, chronic stress, obesity/food-related health disorders, preventive medicine, food safety, antibiotic stewardship, exercise prescription, principles of addiction, accidents & injuries, and environmental health. Prereq: PHAS major; admitted to PA program.

PHAS 7115. Clinical Decision Making 1 with Medical Coding. 3 cr. hrs.
Focuses on developing a systematic approach to the process of solving clinical problems with emphasis on: 1) gaining familiarity with the differential diagnosis of commonly-encountered clinical problems, and 2) exercising the thought process used in clinical practice to work from a broad differential diagnosis to a single working diagnosis and treatment plan. This is accomplished largely by working through mock cases in small groups, individualized assignments and standardized patient encounters. The interpretation of historical, physical exam and diagnostic test data are addressed within the context of clinical case studies. The intent is to apply and integrate skills and competencies that have been introduced in previous and concurrent coursework: the basic sciences, pathophysiology, history taking, interviewing & physical examination skills, ordering and interpreting diagnostic tests, giving oral case presentations and documenting medical data in a written format. Prereq: PHAS major; admitted to PA program.

PHAS 7116. Clinical Decision Making 2. 4 cr. hrs.
This 4-credit course focuses on continuing to develop a systematic approach to the process of solving clinical problems. Emphasizes: 1) gaining familiarity with the differential diagnosis of commonly-encountered clinical problems, and 2) exercising the thought process used in clinical practice to work from a broad differential diagnosis to a single working diagnosis and treatment plan. Accomplished largely by working through mock cases in small groups, individualized assignments and standardized patient encounters. Also focuses on practical experience with commonly-encountered clinical problems in a community setting (Repairer's of the Breach Clinic) and developing skills for clinical practice. Intended to apply and integrate skills and competencies that students have been introduced to in previous and concurrent coursework: the basic sciences, pathophysiology, history taking, interviewing & physical examination skills, ordering and interpreting diagnostic tests, giving oral case presentations and documenting medical data in a written format. Course cases are linked with concurrent clinical medicine sections including Neurology, Psychiatry, Orthopedics, Rheumatology, Gastroenterology, Hematology, Endocrinology, Nephrology, and Urology. The interpretation of historical, physical exam and diagnostic test data are addressed within the context of clinical case studies. Prereq: PHAS major; admitted to the PA program.

PHAS 7117. Cultural Diversity in Health Care. 2 cr. hrs.
Introduction to healthcare delivery to diverse patient populations. Explores various culturally influenced perspectives on health and illness as well as identifying health disparities among certain cultural groups and minority populations. Students work toward becoming culturally competent practitioners by exploring their personal reactions to culturally based medical scenarios. Prereq: PHAS major; admitted to professional phase of Physician Assistant Studies.

PHAS 7118. Clinical Decision Making 3. 2 cr. hrs.
A 2-credit continuation of PHAS 7116 that focuses on application and further development of the student's approach to working-up and solving medical problems, as well as providing patient education and counseling. It is intended to build upon, refine and integrate basic clinical skills, interpersonal skills and competencies that students have acquired in previous course work. Students study health disease in social and cultural contexts recognizing health disparities that may exist. Students' clinical skills are honed by providing classroom activities to practice how to approach a focused history, physical exam and address an acute complaint in a simulated primary care outpatient setting. Prereq: PHAS major; admitted to PA program.

PHAS 7145. Physician Assistant Practice. 1 cr. hr.
Current issues facing the profession, including legal and professional standards and how physician assistants fit into the healthcare system are explored. Students become familiar with the history and traditions of the PA profession as well as the current standards and expectations to practice medicine as a physician assistant. Includes information about certification and licensure, employment, professional organizations and political/legislative topics. Prereq: Admitted to PA program.
PHAS 7200. Interpersonal Communication. 2 cr. hrs.
A 2-credit semester course intended to build upon basic interviewing skills that were introduced in PHAS 7050. Consists of a series of patient-encounters, classroom discussions and readings relevant to working constructively with problems in clinician/patient communications. Common types of difficult patient interactions will be addressed. Self-awareness is emphasized as the basis upon which clinicians develop an enhanced capacity for empathic listening and responsiveness. Prereq: PHAS major; admitted to PA program.

PHAS 7220. Clinical Pharmacotherapeutics. 4 cr. hrs.
A 4-credit clinical course that focuses on clinical pharmacotherapeutics designed specifically to develop an extensive understanding of the medications routinely used in inpatient and outpatient medical care. Presented in both lecture and case study format using patient scenarios to develop clinical pharmacology knowledge. Prereq: PHAS major, BISC 7120, and admitted to PA program.

PHAS 7230. Geriatric Medicine. 2 cr. hrs.
An introduction into the biological aspects of aging, latency of disease, clinical geriatric syndromes, atypical disease presentations, drug prescribing and long term care of the elderly. Students develop an understanding of the special considerations and knowledge needed for clinical assessment and management of this special patient population. Prereq: PHAS major; admitted to PA program.

PHAS 7235. Emergency Medicine. 4 cr. hrs.
A comprehensive introduction to diagnosis and treatment of common and life-threatening adult and pediatric problems in the Emergency Department. Information and skills are delivered and developed in a series of lectures, skills labs and small group case discussions led by an emergency medicine physician and EM PAs. Integrates prior and current developing knowledge of clinical medicine, history and physical exam taking, pediatrics, pharmacology, public health, surgery, and women's health. Students obtain certification in ACLS: Advanced Cardiac Life Support. Prereq: PHAS major; admitted to Physician Assistant Studies.

PHAS 7245. Professional Issues. 1 cr. hr.
Emphasis is on current issues facing the profession, and the unique place for PAs within the health care system. Prepares students for entry into clinical field-based practice and transition into clinical practice focusing on professional issues unique to the profession. Prereq: PHAS major; admitted to PA program.

PHAS 7250. Surgical Principles and Procedures. 4 cr. hrs.
An introduction to the role of the physician assistant in surgery and surgical procedures commonly performed in post-operative care. Employs a system-oriented, problem based approach and clinical information is presented in conjunction with appropriate, correlative lectures or labs in anatomy, physiology, pharmacology, pathology, radiology, laboratory diagnostics, and nutrition. Prereq: PHAS major; admitted to PA program.

PHAS 7260. Pediatric Medicine. 3 cr. hrs.
An introduction to pediatric medicine. Covers the well child exam from birth through adolescence, and common medical problems encountered in the pediatric setting. Employs a system-oriented, problem based approach and clinical information is presented in conjunction with appropriate, correlative lectures or labs in anatomy, physiology, pharmacology, pathology, radiology, laboratory diagnostics, and nutrition. Prereq: PHAS major; admitted to Physician Assistant Studies.

PHAS 7265. Health Care Systems and Ethics. 1 cr. hr.
Familiarizes the student with the ever-changing health care marketplace and the Physician Assistant Profession's role within it. Traces the mechanism of the health care delivery system from the basic patient encounter through to the variations in healthcare delivery among the various paid and subsidized systems, including Federal, State and private systems. Also explores the various local, state, and federal patient resource programs that are available and addresses how to help patients access them as a provider. Addresses health care and medical related ethics that PAs might encounter from a systems based perspective. Concludes with an in-depth look at the medical coding system and teaches the students how and why to code properly. Prereq: PHAS major; admitted to PA program.

PHAS 7270. Diagnostics Technology. 4 cr. hrs.
Consists of three distinct class sections: a 12-Lead ECG interpretation section, a radiology section, and a laboratory section. Provides a broad introduction to these topics that are expanded upon in PHAS 7110, 7111, and 7115. The ECG interpretation section will provide students with a systematic methods of interpreting a 12-Lead ECG with respect to rate, rhythm and blocks, electrical axis determination, hypertrophy (atria and ventricles), ischemia/injury/Infarction, and miscellaneous drug, electrolyte, disease, and pacemaker effects. The radiology section will provide students with a systematic method of interpreting common radiographic studies seen in primary care. The laboratory section emphasizes the utilization of laboratory methods for the diagnosis and treatment of disease. The content focuses on those aspects pertinent to the provision of ambulatory primary care. Prereq: PHAS major; admitted to PA program.

PHAS 7287. Summative Clinical Assessment. 1 cr. hr.
Summative assessment course offered every term of the clinical year which utilizes several evaluation tools provide a comprehensive appraisal of every student’s readiness and eligibility for graduation. Students complete case presentations, complete Observed Simulated Clinical Experiences (OSCEs) with standardized patients, and give presentations on public health disparities. Students complete a comprehensive summative examination based on the NCCPA examination PANCE guidelines. Prereq: Admitted to the PA program.

PHAS 7931. Topics in Physician Assistant Studies. 1-6 cr. hrs.
Used for topics course.

PHAS 7986. Internship in Physician Assistant Studies. 2-6 cr. hrs.
May be offered graded or S/U. Prereq: PHAS major; admitted to PA program.
PHAS 7995. Independent Study in Physician Assistant Studies. 1-6 cr. hrs.
Prereq: Admitted to PA program.

PHAS 7997. Master's Capstone Project. 0-8 cr. hrs.
A yearlong Capstone concluding in either a paper or a project. The paper requires students to select a pertinent health topic, propose a relevant clinical question, complete a thorough literature search, and draw conclusions based on the data/evidence. These findings are then presented in the form of a clinical paper suitable for publication in a medical journal and as a PowerPoint presentation. The project requires students to identify a public or clinical health problem or issue to be addressed through a student-led project. Students design and implement the project and draw conclusions based on data/evidence. These findings are presented in the form of a research paper suitable for publication in a medical or public health journal and as a PowerPoint presentation. In both options 0 credit are SNC/UNC grade assessment; 1-4 credits are graded. Prereq: PHAS major; admitted to PA program.