# **BIOLOGY**

Chair	Secretary	Location	Department Phone
Dr. Nicole Dafoe	Melissa Barber	300 Vincent	724-738-2023
		Science Center	

Department Web Site URL (http://www.sru.edu/academics/colleges-and-departments/ches/departments/biology/)

# **Physician Assistant Program Director**

Ms. Megan Borger

# **Faculty**

# **Biology Faculty**

# **Simon Beeching**

Professor

Biology

Ph.D., Indiana University

B.A., University of Maine

## **Martin Buckley**

Associate Professor

Biology

Ph.D., Michigan State University

M.S., Saint Louis University

B.A., Saint Louis University

# **Nicole Dafoe**

Associate Professor

Biology

Ph.D., University of Victoria

B.S., Grand Valley State University

## **Dean Denicola**

Professor

Biology

Ph.D., Oregon State University

M.S., University of Maine

B.A., University of Vermont

## **Amber Eade**

Assistant Professor

Biology

Ph.D., State University New York Upstate Medical University

M.S., Lake Erie College of Osteopathic Medicine

M.A., Chicago School of Professional Psychology

B.S., Millikin University

# **Paul Falso**

Associate Professor

Biology

Ph.D., University of California

B.S., Allegheny College

# Miranda Falso

Associate Professor

Biology

Ph.D., University of Pittsburgh

B.S., Allegheny College

# **Wayne Forbes**

Associate Professor

Biology

Ph.D., University of West Indies

B.S., University of West Indies

### **Evan Guiney**

**Assistant Professor** 

Biology

Ph.D., Stanford University

B.A., Amherst College

## Stacy Hrizo

Associate Professor

Biology

Ph.D., University of Pittsburgh

B.S., West Chester University

## **David Krayesky**

Professor

Biology

Ph.D., University of Louisiana

M.S., Southern Illinois University

B.S., Johnson State College

# Jack Layne

Professor

Biology

Ph.D., Miami University

M.S., Miami University

B.S., University of Evansville

## **Christopher Maltman**

Assistant Professor

Biology

Ph.D., University of Manitoba

M.S., University of Manitoba

B.S., University of Manitoba

## Susan Rehorek

Professor

Biology

Ph.D., University of Adelaide (Australia)

B.S., University of Adelaide (Australia)

# **Cory Shoemaker**

Assistant Professor

Biology

Ph.D., Mississippi State University

M.S., Mississippi State University

B.S., Wittenberg University

# Mark Shotwell

Associate Professor

Biology

Ph.D., University of Michigan

B.S., Ohio University

# Steven Strain

Professor

Biology

Ph.D., Oregon State University

B.S., Memphis State University

# **Physician Assistant Studies Faculty**

### Jennifer Belavic

Assistant Professor Physician Assistant Studies Pharm.D., Philadelphia College of Pharmacy M.B.A., New England College

### Megan Borger

Associate Professor Physician Assistant Studies M.S., King's College B.S., King's College

#### **Natalie Brahm**

Assistant Professor Physician Assistant Studies M.P.A.S., Seton Hill University B.S., State University of New Jersey-Rutgers

# Olivia Buterbaugh

Assistant Professor Physician Assistant Studies M.S., Duquesne University B.S., Duquesne University

#### **Heather Fritz**

Assistant Professor Physician Assistant Studies M.B.S., University of Toledo B.A., Bowling Green State University

# **Audra Kessler**

Assistant Professor Physician Assistant Studies M.P.A., Duquesne University B.S.H., Duquesne University

# Barbara Ragnelli

Assistant Professor Physician Assistant Studies M.S., LaRoche College B.S., Penn State University

# **Heather Rapp**

Assistant Professor Physician Assistant Studies M.P.A., Duquesne University B.S., Duquesne University

# **Justin Siebert**

Assistant Professor
Physician Assistant Studies
M.Ed., Lake Erie College of Osteopathic Medicine
M.S., Lake Erie College of Osteopathic Medicine
Ph.D., SUNY Upstate Medical University
B.S., SUNY at Oneonta

# **Elise Somers**

Assistant Professor Physician Assistant Studies M.P.A.S., Chatham University B.S., Juniata College

# **Breanne Westendorf**

Assistant Professor Physician Assistant Studies M.P.A., Chatham University B.S., Slippery Rock University of PA

# **Programs**

# **Majors**

 Physician Assistant Studies, Master of Science in Physician Assistant Studies (MSPAS) (https://catalog.sru.edu/graduate/health-engineering-sciences/biology/physician-assistant-studies-mspas/)

# Courses

# **PA Courses**

## PA 590 - Experimental

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 1-3

Term(s) Typically Offered: Offered as Needed Enrollment limited to students with a semester level of Graduate.

# PA 595 - Workshop

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 1-6

Term(s) Typically Offered: Offered as Needed Enrollment is limited to Graduate level students.

# PA 598 - Selected Topics

A Selected Topics course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 1-3

Term(s) Typically Offered: Offered as Needed Enrollment is limited to Graduate level students.

# PA 601 - The Physician Assistant Profession

This course provides an historical perspective of the Physician Assistant profession, as well as an investigation of current trends and issues. The course stresses the professional responsibilities in relation to the Physician Assistant's role as a health care provider. Content relating to medical ethics and the NCCPA code of ethics, Physician Assistant professional organizations, professionalism, the medical team, program accreditation, graduate certification and re-certification, employment considerations and professional liability are included. This course will also include Health Insurance Portability and Accountability Act (HIPAA) competency acquisition.

# Credits: 1

Term(s) Typically Offered: Offered Summer Terms Enrollment limited to students in the MS 9PAS program. Enrollment is limited to Graduate level students.

## PA 603 - Clinical Skills Lab I

In this course, students will employ the knowledge, technical skills and procedures based on current professional practice to be successful practicing physician assistants. In this course, students employ knowledge, skills, and techniques needed to perform clinical skills needed to evaluate surgical and ambulatory patients. Students learn to perform procedures throughout this course including: Sterile technique, injections and immunizations, treatment of abscesses, removal of foreign bodies, and clinical procedure involved with the dermatological, otolaryngology, male genitourinary, obstetric & gynecological, urinary, and neurological systems. Clinical procedure involving treatment of the abdomen will also be covered.

### Credits: 1

Term(s) Typically Offered: Offered Fall Terms Enrollment limited to students in the MS 9PAS program. Enrollment is limited to Graduate level students.

## PA 604 - Emergency Medicine

In this course, students learn treatments of trauma and medical disorders that commonly present to the emergency department. Taught in a case-based format, the emphasis is on the priority of stabilizing patients with life-threatening trauma or illness and selecting appropriate diagnostic and therapeutic measures. Prerequisites: Successfully passed all courses 2nd semester, meeting minimum progression standards.

#### Credits: 1

Term(s) Typically Offered: Offered Spring Terms
Enrollment limited to students in the MS 9PAS program.
Enrollment is limited to Graduate level students.

# PA 607 - Clinical Skills Lab II

This course is a continuation of Clinical Skills Lab I. In this course, students employ knowledge, skills, and techniques needed to perform clinical skills needed to evaluate surgical and ambulatory patients. This course will focus on learning clinical procedures involve with the: cardiovascular system, phlebotomy, pulmonary system, musculoskeletal system, wound management and closure, and skills involved with the operating room.

# Credits: 1

Term(s) Typically Offered: Offered Spring Terms Enrollment is limited to Graduate level students. Enrollment limited to students in a Master of Science PA Studies degree.

## PA 612 - Clinical Anatomy and Physiology with Lab I

This course provides students with a working knowledge of the major anatomical regions and structures of the body in relation to the: otolaryngology, ophthalmology, integumentary, and musculoskeletal body systems. Lecture will focus on histology, physiology, and cell biology of the stated body systems, while the laboratory component of the course will focus on the gross anatomy of the body systems through examination of the cadaver. Clinical correlations to common pathologies will also be discussed for each body system.

# Credits: 3

Term(s) Typically Offered: Offered Summer Terms Enrollment limited to students in the MS 9PAS program. Enrollment is limited to Graduate level students.

## PA 616 - Clinical Pharmacology and Pharmacotherapeutics I

In this course, students are introduced to pharmacodynamics, pharmacokinetic and Pharmacotherapeutics principles that provide a foundation for the study of pharmacology and pharmacotherapeutics. Students will also learn how to write prescriptions. Combined lecture and active learning exercises help students to demonstrate skills that a Physician Assistant needs to enhance patient care in clinical practice. This course focuses on pharmacology and therapeutics related to otolaryngological, ophthalmological, integumentary and musculoskeletal diseases and disorders.

#### Credits: 2

Term(s) Typically Offered: Offered Summer Terms Enrollment limited to students in the MS 9PAS program. Enrollment is limited to Graduate level students.

## PA 621 - Geriatrics

This course will focus on the geriatric population from age 65 to death, surveying disorders common to the geriatric population. Fundamental elements of clinical medicine as the elements relate to health maintenance and wellness of this patient population will be covered as appropriately indicated. Physician Assistant students will have a greater appreciation for and comprehension of the socio-behavioral aspects of medical practice. Wellness and preventative medicine will be discussed. Students learn effective counseling and preventive education strategics for enhancing treatment compliance, promoting positive health patterns wellness and enhancing positive responses to illnesses in this patient population. Special topics include death and dying, giving bad news, hospice care, palliative care and facilitating end-of-life care.

## Credits: 1

Term(s) Typically Offered: Offered Fall Terms Enrollment limited to students in the MS 9PAS program. Enrollment is limited to Graduate level students.

# PA 622 - Clinical Anatomy & Physiology with Lab II

This course provides students with a working knowledge of the major anatomical regions and structures of the body in relation to the: nervous, endocrine, gastrointestinal, urinary, and reproductive body systems. Lecture will focus on histology, physiology, and cell biology of the stated body systems, while the laboratory component of the course will focus on the gross anatomy of the body systems through examination of the cadaver. Clinical correlations to common pathologies will also be discussed for each body system.

## Credits: 3

Term(s) Typically Offered: Offered Fall Terms Enrollment limited to students in the MS 9PAS program. Enrollment is limited to Graduate level students.

# PA 626 - Clinical Pharmacology and Pharmacotherapeutics II

In this course, students will continue to build a foundation in pharmacology and pharmacotherapeutics principles learned in Clinical Pharmacology and Pharmacotherapeutics I. Students will also continue to write prescriptions. Combined lecture and active learning exercises will continue to help students demonstrate sills that a Physical Assistant needs to enhance patient care in clinical practice. This course focuses on pharmacology and pharmacotherapeutics related to neurological psychosocial/psychiatric, endocrinological, gastrointestinal, genitourinary and reproductive diseases and disorders.

#### Credits: 3

Term(s) Typically Offered: Offered Fall Terms Enrollment limited to students in the MS 9PAS program. Enrollment is limited to Graduate level students.

# PA 630 - Pediatrics

This course will focus on the pediatric population from birth through adolescence, surveying disorders common to the pediatric population. Fundamental elements of clinical medicine as the elements relate to health maintenance and wellness from birth through adolescence are covered as appropriately indicated. Normal growth and development are reviewed, together with suggestions for effective parent-child communication and interaction. Students learn effective counseling and preventive education strategies for enhancing treatment compliance, promoting positive health patterns and enhancing positive responses to illnesses in this patient population.

#### Credits: 1

Term(s) Typically Offered: Offered Fall Terms Enrollment limited to students with a semester level of Graduate. Enrollment limited to students in the MS 9PAS program.

# PA 632 - Clinical Anatomy & Physiology with Lab III

This course provides students with a working knowledge of the major anatomical regions and structures of the body in relation to the: cardiovascular and respiratory systems, additionally genetic anomalies and infectious disease will be covered in this course. Lecture will focus on histology, physiology, and cell biology of the stated body systems, while the laboratory component of the course will focus on the gross anatomy of the body systems through examination of the cadaver. Clinical correlations to common pathologies will also be discussed for each body system.

# Credits: 3

Term(s) Typically Offered: Offered Spring Terms Enrollment limited to students in the MS 9PAS program. Enrollment is limited to Graduate level students.

# PA 636 - Clinical Pharmacology and Pharmacotherapeutics III

In this course, students will solidify and understanding of pharmacology and pharmacotherapeutics principles learned in Clinical Pharmacology and Pharmacotherapeutics I and II. Students will become proficient at writing prescriptions. Combined lecture and active learning exercises will continue to help students demonstrate skills that a Physicial Assistant needs to enhance patient care in clinical practice. This course focuses on pharmacology and pharmacotherapeutics related to hematological, cardiovasuclar and plumonary diseases and disorders. Pharmacological treatments related to infectious disease will also be covered this semester. Treatment options involving genetic anomalies will be addressed in this course as well.

#### Credits: 3

Term(s) Typically Offered: Offered Spring Terms Enrollment limited to students in the MS 9PAS program. Enrollment is limited to Graduate level students.

# PA 640 - Clinical History and Physical Diagnosis with Lab I

This course teaches the foundational knowledge required to systematically obtain an accurate patient history and perform a comprehensive physical examination, setting the course for best-practice clinical approaches. The lecture component focuses on approaching and diagnosing diseases and disorders in relation to otolaryngology, ophthalmology, integumentary and musculoskeletal body systems. The lab component introduces the student to obtaining and performing a history and physical examination based upon patient complaint and presentation, as well as differential diagnosis. Proper use of diagnostic equipment and techniques for performing a physical examination will be learned.

Corequisite(s): PA 641

Credits: 4

Term(s) Typically Offered: Offered Summer Terms
Enrollment limited to students with a semester level of Graduate.
Enrollment limited to students in the MS 9PAS program.

# PA 642 - Clinical History and Physical Diagnosis with Lab II

This course builds on skills learned in Clinical History and Physical Diagnosis I, continuing to focus on relevant history and physical examination skills needed to pragmatically approach and diagnose diseases and disorders. The lecture component focuses on approaching and diagnosing diseases and disorders in relation to the neurological, psychosocial/psychiatric, endocrine, gastrointestinal, genitourinary and reproductive body systems. The lab component includes the continuation of obtaining and performing a history and physical examination based upon patient complaint and presentation, as well as differential diagnosis. Documentation on problem-oriented SOAP (subjective, objective, assessment, plan) notes, pre-and postoperative encounters, hospital orders, consultations, progress notes and discharge summaries will be learned. Proper use of diagnostic equipment and techniques for performing a physical examination will be learned. Students will also cover Basic Life Support (BLS) to obtain their (re)certification in cardiopulmonary resuscitation (CPR).

Corequisite(s): PA 643

Credits: 4

Term(s) Typically Offered: Offered Fall Terms Enrollment limited to students with a semester level of Graduate. Enrollment limited to students in the MS 9PAS program.

## PA 644 - Clinical History and Physical Diagnosis with Lab III

This course builds on skills learned in Clinical History and Physical Diagnosis I and II, continuing to focus on relevant history and physical examination skills needed to pragmatically approach and diagnose diseases and disorders. The lecture component focuses on approaching and diagnosing diseases and disorders in relation to the hematological, cardiovascular and pulmonary body systems. The lab component includes the continuation of obtaining and performing a history and physical examination based upon patient complaint and presentation, as well as differential diagnosis. Students will learn components of a well-person geriatric history and physical examination and well-child pediatric history and physical examination. Other topics covered in this course include challenges associated with diversity, and handling the difficult patient, preceptor, coworker, or supervisor. Students are required to become Advanced Cardiovascular Life Support (ACLS) certified or recertified in anticipation of clerkships.

Corequisite(s): PA 645

Credits: 4

Term(s) Typically Offered: Offered Spring Terms Enrollment limited to students with a semester level of Graduate. Enrollment limited to students in the MS 9PAS program.

# PA 646 - Evidence Based Public Health

This course will cover evidence-based medicine, basic statistics, research methods, and public health. Major topics covered will include design of medical and health studies, description of data, data analysis used in health-related journals, screening tests for disease, and the ethics of research and handling of data. This course will also examine the field of public health, the role of evidence-based medicine in public health, and the evolution of the US public health service and its relationship to patient care.

Credits: 3

Term(s) Typically Offered: Offered Summer Terms
Enrollment is limited to Graduate level students.
Enrollment limited to students in a Master of Science PA Studies degree.

# PA 651 - Clinical Medicine with Lab I

This course teaches the pathology of disease by body system and specialty. Fundamental elements of clinical medicine such as epidemiology, precipitating factors, etiology, risk factors, pathogenesis, pathophysiology, linical presentation and manifestations, red flags, diagnostics, clinical intervention, management of diseases and disorders, clinical pearls, and differential diagnoses as appropriately indicated are covered. Students will learn how primary and differential diagnoses are used to order laboratory tests, imaging and other diagnostic studies such as pathology reports in order to rule in or rule out disease processes and disorders. Blood-borne pathogen competency acquisition is also covered and students will also learn how to calculate needed values from given values when necessary. This course also involves the interactive practical application of acquired knowledge and is designed to develop critical thinkers, solidify medical concepts through collaborative learning experiences, and to appropriately interpret the results of the laboratory testing and to know what to do with the findings. Correlated reviews of relevant pathology and radiology are also incorporated. This course specifically focuses on disorders in relation to otolaryngology, ophthalmology, integumentary and musculoskeletal body systems.

Credits: 4

Term(s) Typically Offered: Offered Summer Terms Enrollment limited to students in the MS 9PAS program. Enrollment is limited to Graduate level students.

# PA 654 - Special Populations I

The course is intended to help students learn about and become comfortable with the special populations they will encounter as a medical care provider. This course will include populations affected by socioeconomic disparities in health care, the incarcerated population, and issues surrounding immigrants and refugees.

#### Credits: 1

Term(s) Typically Offered: Offered Summer Terms
Enrollment limited to students in the MS 9PAS program.
Enrollment is limited to Graduate level students.

### PA 661 - Clinical Medicine with Lab II

This course teaches the pathology of disease by body system and specialty. Fundamental elements of clinical medicine such as epidemiology, precipitating factors, etiology, risk factors, pathogenesis, pathophysiology, clinical presentation and manifestations, red flags, diagnostics, clinical intervention, management of diseases and disorders, clinical pearls, and differential diagnoses as appropriately indicated are covered. Students will learn how primary and differential diagnoses are used to order laboratory tests, imaging and other diagnostic studies such as pathology reports in order to rule in or rule out disease processes and disorders. Students will learn how to calculate needed values from given values when necessary. This course also involves the interactive practical application of acquired knowledge and is designed to develop critical thinkers solidify medical concepts through collaborative learning experiences and to appropriately interpret the results of the laboratory testing and to know what to do with the findings. Correlated reviews of relevant pathology and radiology are also incorporated. This course specifically focuses on neurological, psychosocial/psychiatric, endocrine, gastrointestinal, genitourinary and reproductive body systems.

## Credits: 5

Term(s) Typically Offered: Offered Fall Terms Enrollment limited to students in the MS 9PAS program. Enrollment is limited to Graduate level students.

# PA 664 - Special Populations II

The purpose of this course is for students to continue to learn about and become comfortable with the special populations they will encounter as a medical care provider. This course will cover persons with genetic and/or developmental disabilities, members of the minority sexual and gender identities community, and victims of abuse.

# Credits: 1

Term(s) Typically Offered: Offered Fall Terms Enrollment limited to students in the MS 9PAS program. Enrollment is limited to Graduate level students.

## PA 671 - Clinical Medicine with Lab III

his course teaches the pathology of disease by body system and specialty. Fundamental elements of clinical medicine such as epidemiology, precipitating factors, etiology, risk factors, pathogenesis, pathophysiology, clinical presentation and manifestations, red flags, diagnostics, clinical intervention, management of diseases and disorders, clinical pearls, and differential diagnoses as appropriately indicated are covered. Students will learn how primary and differential diagnoses are used to order laboratory tests, imaging and other diagnostic studies such as pathology reports in order to rule in or rule out disease processes and disorders. Students will learn how to calculate needed values from given values when necessary. This course also involves the interactive practical application of acquired knowledge and is designed to develop critical thinkers solidify medical concepts through collaborative learning experiences and to appropriately interpret the results of the laboratory testing and to know what to do with the findings. Correlated reviews of relevant pathology and radiology are also incorporated. This course specifically focuses on hematology, cardiovascular and pulmonary body systems in addition to infectious disease and genetic anomalies.

### Credits: 5

Term(s) Typically Offered: Offered Spring Terms Enrollment limited to students in the MS 9PAS program. Enrollment is limited to Graduate level students.

# PA 674 - Special Populations III

The purpose of this course is for students to continue to learn about and become comfortable with the special populations they will encounter as a medical care provider. Specifically, this course will cover individuals of the homeless population, individuals belonging to the HIV population, and veterans of the armed forces.

# Credits: 1

Term(s) Typically Offered: Offered Spring Terms Enrollment limited to students in the MS 9PAS program. Enrollment is limited to Graduate level students.

# PA 677 - Clinical Exposure Practicum

This course continues to incorporate experiential learning to prepare the student for clerkships and eventually clinical practice. It also continues to facilitate the transition of knowledge and skills from the academic phase to the clinical phase, giving students the opportunity to hone skills. Students will once again be placed in clinic and hospital settings for half a day multiple times throughout the semester, have other health-related community experiences and activities and discuss these experiences in class.

## Credits: 0.5

Term(s) Typically Offered: Offered Spring Terms Enrollment limited to students in the MS 9PAS program. Enrollment is limited to Graduate level students.

## PA 690 - Experimental

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 1-3

Term(s) Typically Offered: Offered as Needed Enrollment limited to students with a semester level of Graduate.

## PA 695 - Workshop

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 1-6

Term(s) Typically Offered: Offered as Needed Enrollment is limited to Graduate level students.

## PA 698 - Selected Topics

A Selected Topics course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 1-3

Term(s) Typically Offered: Offered as Needed Enrollment is limited to Graduate level students.

## PA 700 - Independent Study

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

Credits: 1-3

Term(s) Typically Offered: Offered as Needed Enrollment is limited to Graduate level students.

## PA 701 - From Theory to Practice I

This course is designed to transition students from their academic experiences to clinical experiences to clinical practice. Topics will include issues students will encounter during clerkships, including medical ethics, patient safety principles, clinical setting communications, Occupational Safety and Health Administration (OSHA), Health Insurance Portability and Accountability Act (HIPAA), professionalism, quality improvement, prevention of medical errors, risk management and an in-depth discussion of program and professional requirements for progressing through the clinical year. Delivery of healthcare influences will be explored in how it relates to the practicing Physician Assistant. Healthcare legislations and policies will be examined for their impact on national and local delivery of healthcare. Students will also review electronic medical records, billing and coding that will be correlated with their clinical clerkship experience.

Credits: 2

Term(s) Typically Offered: Offered Summer Terms Enrollment limited to students in the MS 9PAS program. Enrollment is limited to Graduate level students.

## PA 702 - From Theory to Practice II

This course will focus on current Physician Assistant licensing and credentialing, health care law, and medical malpractice. Students will focus on requirements for state licensure, NCCPA certification, DEA licensing and hospital credentialing procedures. Medical malpractice insurance, risk management, regulations of Physician Assistants and PA Scope of practice will be covered. Students will review CME requirements for State licensure and National Certification. This course will largely focus on medical malpractice and Physician Assistant credentialing in relation to the Commonwealth of Pennsylvania. Opportunities will be provided for students to research credentialing laws/requirement in other localities well.

#### Credits: 2

Term(s) Typically Offered: Offered Fall Terms Enrollment limited to students in the MS 9PAS program. Enrollment is limited to Graduate level students.

## PA 703 - From Theory to Practice III

This course will focus on preparing MSPAS students to take the Physician Assistant National Certification Examination (PANCE). Preparation for PANCE will be covered to include review topics, test taking skills and scheduling the PANCE. This course will include the accreditation required Summative Examination and Summative OSCE. Students will focus on the transition of a Physician Assistant student to the new graduate Physician Assistant in clinical practice. Students will also learn tips on resume and CV writing as well as job interviewing skills. Students will be required to pass a Summative Written Examination and OSCE to pass the course.

#### Credits: 2

Term(s) Typically Offered: Offered Spring Terms Enrollment limited to students in the MS 9PAS program. Enrollment is limited to Graduate level students.

# PA 771 - Clinical Clerkships Experience I

The first in a series of four clinical clerkship experiences, starting in the summer semester for 13-weeks in duration, this course is designed to allow students to develop the knowledge, skills, abilities and attitudes required to care for patients of all age groups. Students will be assigned to a minimum of two clinical rotation sites for 4.5-weeks in length, with a mandatory one-day call back session. The rotations can occur in any of the following disciplines: family medicine, general surgery, internal medicine, pediatrics, women's health, emergency medicine, behavioral health or any elective discipline. During Clinical Clerkships Experience I students will also complete a 3-week Special Populations rotation.

Credits: 12.6

Term(s) Typically Offered: Offered Summer Terms
Enrollment is limited to Graduate level students.
Enrollment limited to students in a Master of Science PA Studies degree.

## PA 772 - Clinical Clerkships Experience II

The second in a series of four clinical clerkship experiences, during fall semester for 15-weeks in duration. Students will be assigned to a minimum of three clinical rotation sites for 4.5-weeks in length, in any of the following disciplines: family medicine, general surgery, internal medicine, pediatrics, women's health, emergency medicine, behavioral health or any elective discipline. At the conclusion of each 4.5-week rotation students will return to campus for a one-day call back session.

Credits: 14.4

Term(s) Typically Offered: Offered Fall Terms Enrollment is limited to Graduate level students.

Enrollment limited to students in a Master of Science PA Studies degree.

# PA 773 - Clinical Clerkship Experience III

The third in a series of four clinical clerkship experiences, offered during the winter semester. This rotation is 3-weeks in length and is a special populations rotation which can encompass a variety of clinical specialties with a focus on patients within special populations.

Credits: 3

Term(s) Typically Offered: Offered Fall Terms
Enrollment is limited to Graduate level students.
Enrollment limited to students in a Master of Science PA Studies degree.

## PA 774 - Clinical Clerkships Experience IV

The fourth in a series of four clinical clerkship experiences, offered during spring semester for 15-weeks in duration. Students will be assigned to a minimum of three clinical rotation sites for 4.5-weeks in length, in any of the following disciplines: family medicine, general surgery, internal medicine, pediatrics, women's health, emergency medicine, behavioral health or any elective discipline. Upon completion of each 4.5-week rotation students will return to campus for a one-day call back session.

Credits: 14.4

Term(s) Typically Offered: Offered Spring Terms Enrollment is limited to Graduate level students.

Enrollment limited to students in a Master of Science PA Studies degree.

# PA 776 - Clerkship General Rotation

A 4.5 week clinical rotation with a mandatory one-day call back session. The rotation can be in any of the following disciplines; family medicine, general surgery, internal medicine, pediatrics, women's health, emergency medicine, behavioral health or any elective discipline. MSPAS majors only. Satisfactory completion of all Didactic year Curriculum of MSPAS program.

Credits: 4.5

Term(s) Typically Offered: Offered as Needed Enrollment is limited to students with a program in Physician Assistant Studies.

Enrollment is limited to Graduate level students. Enrollment limited to students in the Coll of Health, Engineer & Sci college.

# PA 777 - Clerkship Special Population Rotation

A 3-week clinical rotation caring for patients in special populations, which can encompass a variety of clinical specialties with a focus on patients within special populations. MSPAS majors only. Satisfactory completion of all Didactic year Curriculum of MSPAS program.

## Credits: 3

Term(s) Typically Offered: Offered as Needed

Enrollment is limited to students with a program in Physician Assistant Studies.

Enrollment is limited to Graduate level students.

Enrollment limited to students in the Coll of Health, Engineer & Sci college.

# PA 790 - Experimental

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

## Credits: 1-3

Term(s) Typically Offered: Offered as Needed

Enrollment limited to students with a semester level of Graduate.

## PA 795 - Workshop

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

## Credits: 1-6

Term(s) Typically Offered: Offered as Needed Enrollment is limited to Graduate level students.

# PA 798 - Selected Topics

A Selected Topics course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

## Credits: 1-3

Term(s) Typically Offered: Offered as Needed Enrollment is limited to Graduate level students.