Physician Assistant Studies

Physician Assistant
(540) 568-8171
http://www.jmu.edu/heathsci/paweb

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Instructor
E. Richardson

Admission Requirements
To be considered for admission to the Master in Physician Assistant Studies (M.P.A.S) a prospective student must be admitted to The Graduate School and to the PA master's degree program via separate application processes. The prospective student must complete the following:

- Submit an application to The Graduate School.
- Submit scores from the Graduate Record Examination.
- Have earned a bachelor degree from a regionally accredited college or university. An overall GPA of 3.0 or higher is preferred.
- Have successfully completed the following specific undergraduate prerequisite course work at the "C," 2.0 level, or better prior to beginning the PA curriculum.
  - Within the last seven years:
    - Human or mammalian anatomy – a one semester course.
    - Human or mammalian physiology – a one semester course.
    - Anatomy and physiology – may be completed as separate courses or as a series of A&P combined courses. In either case the prerequisite course work must include all body systems and regions. Anatomy must include laboratory work, either as a component of the course or as a separate lab course.
Biochemistry – a one semester course.
Genetics – a one semester course.
Microbiology – a one semester course.

Within any number of years:
- Medical terminology.

A minimum of 1,000 hours of direct, patient-contact, health care experience is required. These hours may come from one experience or a combination of experiences and may be voluntary or paid work. Examples of health care professions that require direct, patient contact include nurse, EMT or paramedic; corpsman; patient care technician; nurse's aide; surgical assistant; clinic/medical assistant; respiratory technologist; radiology technologist; medical technologist; mental health worker; or clinical research assistant. Other professions and experiences not listed may also qualify as direct, patient care.

Health care related professions that do not include hands-on patient contact are not considered toward meeting the health care experience requirement. These typically include transporter, CPR or ACLS instructor, lifeguard, non-clinical research assistant, candy striper, unit clerk and others. Although desirable for other reasons, PA shadowing does not count toward the required 1,000 hours of patient care experience. Contact the PA program with any questions regarding health care experience.

Submit an application to the JMU PA program through the Centralized Application Service for Physician Assistants (CASPA). Information and application can be obtained online at www.caspaonline.org.

Application Deadlines

One cadre of students is admitted each year. Classes begin in the fall semester. For deadlines for application to The Graduate School, see Admission to The Graduate School.

For deadlines for application to the PA Program see either http://www.jmu.edu/healthsci/paweb or http://www.caspaonline.org. Specific dates each year are available on the above-mentioned Web sites or by contacting the PA Program.

Application Evaluation Criteria

Candidates are evaluated through review of their written application. Superior candidates are invited to on-campus interviews. The following characteristics, skills and accomplishments are assessed.

- Academic preparation (Overall GPA, science GPA, non-science GPA, prerequisite and recent course work).
- Communication skills (Written application, personal essay, speaking and listening skills at interview).
- Career plans/concept of the PA profession (Written application and interview).
- Health care experience (Written application and interview).
- Professionalism – maturity of insight, judgment, problem-solving (Interview).
- Self-awareness, self-confidence, motivation (Application and interview).
- Service to society (Written application and interview).
- Fit with the JMU PA Program mission and operation (Interview).

Mission

The Master of Physician Assistant Studies program prepares students for clinical positions as primary care physician assistants. The course of study requires 28 consecutive months of work for students who have met the prerequisite requirements and been admitted to the program. Admission is limited and
competitive. Students must be admitted to The Graduate School and to the PA master's degree program 
via separate application processes.

Physician assistants are highly skilled medical professionals who have for over 40 years functioned as 
members of a team delivering quality healthcare. Working with physicians, PAs provide medical services 
traditionally performed by physicians. These services include taking medical histories, performing physical 
examinations, ordering and interpreting tests, diagnosing and treating medical conditions, educating and 
counseling patients, performing minor medical/surgical procedures, and, in most states, prescribing 
medications. The PA's duties are determined by physician supervision as defined by law.

PAs practice in the same settings as physicians, i.e., outpatient facilities, private and public clinics, 
managed care and other systems, and in rural and urban areas. The focus of the JMU program is primary 
care medicine.

Accreditation

The PA program is accredited by the Accreditation Review Commission on Education for the Physician 
Assistant, Inc. Accreditation provides graduates eligibility to take the Physician Assistant National Certifying 
Examination (PANCE). Successful completion of the PANCE is required for graduates to be licensed to 
practice.

Program Policies

Academic standards: The PA Program defines satisfactory academic progress as achieving at least a "B," or 
3.0, grade in each course. The PA Academic Review Committee reviews all performance that falls below 
this standard. In accord with each circumstance, the committee recommends a course of action to the 
department head. Students do not progress to clinical rotations until the committee is satisfied that they 
have achieved minimal mastery of the didactic course work of the first year. The policies of The Graduate 
School regarding unsatisfactory progress also apply.

Advanced standing: Students are required to take all the courses in the curriculum at JMU. No advanced 
standing is given for experience, transfer credit or credit by exam.

Scheduling: The PA program is a full-time curriculum. Students are required to take courses in the 
sequence and during the semesters they are scheduled. There is no part-time or extended time option.

Clinical rotations: Rotations during the clinical year are done at sites distant from the university. Students 
must have transportation and must pay for secondary housing and transportation costs. The program 
assigns students to multiple clinical sites during the second year. Students do not choose the sites of their 
clinical rotations.

Curriculum

All courses are required and must be taken in sequence. Students must be full-time and must take the 
curriculum in a consecutive 28 month period. Exceptions are rare and are granted only by the program 
director. The classroom or didactic component of the curriculum is 16 months or four semesters long. The 
clinical year is 12 months in length.
## Physician Assistant Degree Requirements

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall Semester Year One</strong></td>
<td><strong>BIO 513. Human Gross Anatomy with Clinical Applications</strong></td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>BIO 516. Pathophysiology I</strong></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>PA 510. Physical Diagnosis I</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>PA 540. The Physician Assistant Profession</strong></td>
<td>1</td>
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<td></td>
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<td><strong>14</strong></td>
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| **Spring Semester Year One** | **BIO 517. Pathophysiology II**                                              | 3            |
|                              | **PA 520. Clinical Medicine I**                                              | 5            |
|                              | **PA 532. Pharmacology for PAs I**                                           | 3            |
|                              | **PA 551. Managing Medical Information I: Clinical Biostatistics**            | 3            |
|                              | **PA 630. Clinical Laboratory Medicine I**                                   | 2            |
|                              |                                                                              | **16**       |

| **Summer Session Year One (12 weeks)** | **HTH 659. Health Care Environment**                          | 3            |
|                                         | **PA 511. Physical Diagnosis II**                                   | 2            |
|                                         | **PA 621. Clinical Medicine II**                                    | 3            |
|                                         | **PA 623. Pediatric Medicine**                                      | 2            |
|                                         | **PA 624. Behavioral Medicine**                                     | 2            |
|                                         |                                                                              | **10**       |

| **Fall Semester Year Two**       | **PA 622. Women's Medicine**                                           | 2            |
|                                | **PA 626. Clinical Medicine III**                                      | 2            |
|                                | **PA 631. Clinical Laboratory Medicine II**                            | 2            |
|                                | **PA 633. Pharmacology for PAs II**                                     | 3            |
|                                | **PA 652. Managing Medical Information II: Clinical Problem Solving**   | 3            |
|                                | **PA 653. Managing Medical Information III: Research Design and Implementation** | **1**       |

Total Credit Hours for Degree: **56**
### Spring Semester Year Two

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>PA 625. Health Promotion &amp; Disease Prevention</td>
<td>1</td>
</tr>
<tr>
<td>Rotation Period 1</td>
<td>2</td>
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<tr>
<td>Rotation Period 2</td>
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<tr>
<td>Rotation Period 3</td>
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<tr>
<td>Rotation Period 4</td>
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Total: 9

### Summer Session Year Two

<table>
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<th>Course</th>
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<tr>
<td>PA 643. Values in Primary Care</td>
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</tr>
<tr>
<td>Rotation Period 5</td>
<td>2</td>
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<tr>
<td>Rotation Period 6</td>
<td>2</td>
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<tr>
<td>Rotation Period 7</td>
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Total: 9

### Fall Semester Year Three

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
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<tbody>
<tr>
<td>PA 642. Transition to Practice</td>
<td>1</td>
</tr>
<tr>
<td>Rotation Period 8</td>
<td>2</td>
</tr>
<tr>
<td>Rotation Period 9</td>
<td>2</td>
</tr>
<tr>
<td>Rotation Period 10</td>
<td>2</td>
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<tr>
<td>Rotation Period 11</td>
<td>2</td>
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</tbody>
</table>

Total: 9

Total degree credits: 82

### Course Offerings

**Physician Assistant**

**PA 510. Physical Diagnosis I.**

3 credits.

This is the first in a two-course series that presents fundamental concepts in the physician assistant/patient relationship, skills needed to conduct complete medical histories and physical examinations of patients of all ages, and methodologies commonly used to communicate medical information. Prerequisites: Admission to physician assistant program, or permission of program director.

**PA 511. Physical Diagnosis II.**

2 credits.

This is the second in a two-course series that presents fundamental concepts in the physician assistant/patient relationship, skills needed to conduct complete medical histories and physical examinations of patients of all ages, and methodologies commonly used to communicate medical information.
information. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

PA 520. Clinical Medicine I.
5 credits.
This is the first of a three-course series that examines the etiology, presentation, diagnosis and treatment of diseases and disorders common to adults seen in primary care physician assistant practice. This series serves as preparation for the clinical rotations in internal medicine, family medicine, emergency medicine and surgery. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

PA 532. Pharmacology for Physician Assistants I.
3 credits.
This is the first of two courses that provide the base of information necessary for clinical prescribing of medications. It includes pharmacokinetics, pharmacodynamics and pharmacotherapeutics. Within each class of therapeutic drugs, the course examines drug actions, interactions, reactions, and contraindications. The course also includes principles of prescribing and patient compliance. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

PA 540. The Physician Assistant Profession.
1 credit.
This course explores the principles of the PA profession, its history and place in the spectrum of health care professions. Economic, legal and societal factors influencing the profession are also discussed. Prerequisites: Admission to physician assistant program, or permission of program director.

PA 551. Managing Medical Information I: Clinical Biostatistics.
3 credits.
This is the first in a four-course series designed to provide the physician assistant student with skills to understand research design, analyze research information and apply it to clinical practice. Emphasis in this course will be placed on basic biostatistical concepts, literature searches and analysis. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

PA 621. Clinical Medicine II.
3 credits.
This is the second of a three-course series that examines the etiology, presentation, diagnosis and treatment of diseases and disorders common to adults seen in primary care physician assistant practice. This series serves as preparation for the clinical rotations in internal medicine, family medicine, emergency medicine and surgery and includes workshops to support the diagnosis and treatment of selected disorders. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

PA 622. Women's Medicine.
2 credits.
This course provides an introductory knowledge base in women's medicine. Through a series of presentations it prepares students for obstetric and gynecologic conditions encountered during clinical rotations. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

PA 623. Pediatric Medicine.
2 credits.
This course provides an introductory knowledge base in pediatric medicine. Through a series of presentations it prepares students for pediatric medical conditions encountered during clinical rotations. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.
PA 624. Behavioral Medicine.
2 credits.
This course provides an introductory knowledge base in behavioral medicine. Through a series of presentations it prepares students for behavioral medicine conditions encountered during clinical rotations. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

PA 625. Health Promotion and Disease Prevention.
1 credit.
The course presents strategies that physician assistants employ in promoting health and well being among the people they serve. It also examines public health strategies focused on early discovery of disease, prevention of disease and stopping the spread of disease. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

PA 626. Clinical Medicine III.
2 credits.
This is the third of a three-course series that examines the etiology, presentation, diagnosis and treatment of diseases and disorders common to adults seen in primary care physician assistant practice. This series serves as preparation for the clinical rotations in internal medicine, family medicine, emergency medicine and surgery and includes workshops to support the diagnosis and treatment of selected disorders.

PA 630. Clinical Laboratory Medicine I.
2 credits.
This is the first of a two-course series that presents the clinical laboratory tests used to detect and monitor common diseases and disorders. It focuses on selecting and interpreting the appropriate tests for each body system as well as performing selected tests. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

PA 631. Clinical Laboratory Medicine II.
2 credits.
This is the second course in a two-course series that presents the clinical laboratory tests used to detect and monitor common diseases and disorders. It focuses on selecting and interpreting the appropriate tests for each body system as well as performing selected tests. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

PA 633. Pharmacology for Physician Assistants II.
3 credits.
This is the second of two courses that provide the base of information necessary for clinical prescribing of medications. It includes pharmacokinetics, pharmacodynamics and pharmacotherapeutics. Within each class of therapeutic drugs, the course examines drug actions, interactions, reactions, and contraindications. The course also includes principles of prescribing and patient compliance. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

PA 642. Transition to Physician Assistant Practice.
1 credit.
This course examines issues related to the shift from the role of a PA student to that of a practicing PA. Topics include medical liability and risk management, business aspects of clinical practice, credentialing processes and career development. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

PA 643. Values in Primary Care.
3 credits.
This course provides an overview of professional ethics as they apply to primary care practice for physician assistants. The focus is on major principles and methodologies that guide clinicians in ethical decision-making as they encounter situations common to primary care practice. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

**PA 652. Managing Medical Information II: Clinical Problem Solving.**
3 credits.
This is the second in a four-course series designed to provide the physician assistant student with skills to understand research design, analyze research information and apply it to clinical practice. The emphasis in this course is placed on the use of evidence-based medicine in clinical decision-making. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

**PA 653. Managing Medical Information III: Research Design and Implementation.**
1 credit.
This is the third in a four-course series designed to provide the physician assistant student with skills to understand research design, analyze research information and apply it to clinical practice. In this course students design an individual senior project that will be implemented and presented in PA 654. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

**PA 654. Managing Medical Information IV: Directed Project.**
2 credits.
This is the fourth in a four-course series designed to provide the physician assistant student with skills to understand research design, analyze research information and apply it to clinical practice. Utilizing a study question or research protocol generated in PA 653 students will collect and synthesize information culminating in a class presentation and paper suitable for publication. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

**PA 670. Elective Clinical Rotation.**
2 credits.
This four-week clinical rotation is devoted to an area of study of the student's choosing and the faculty's approval. It might be additional time in a specialty already introduced through another rotation, a different medical specialty of interest or a non-clinical area associated with the PA profession such as education, professional practice issues, etc. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

**PA 671. Family Medicine Clinical Rotation I.**
2 credits.
This is the first of two four-week clinical rotations in family medicine. The student gains knowledge, experience and skill in interviewing and examining patients of all ages, diagnosing and treating disorders and educating and counseling patients and families through participation in these activities while under the supervision of an experienced clinician practicing family medicine. The course also includes assigned reading and exercises. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

**PA 672. Family Medicine Clinical Rotation II.**
2 credits.
This is the second of two four-week clinical rotations in family medicine. The student gains knowledge, experience and skill in interviewing and examining patients of all ages, diagnosing and treating disorders, and educating and counseling patients and families through participation in these activities while under the supervision of an experienced clinician practicing family medicine. The course also includes assigned
reading and exercises. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

PA 673. Internal Medicine Clinical Rotation I.
2 credits.
This is the first of two four-week clinical rotations in internal medicine. The student gains knowledge, experience and skill in interviewing and examining adults, diagnosing and treating disorders, and educating and counseling patients through participation in these activities while under the supervision of an experienced clinician practicing internal medicine. This course also includes assigned readings and exercises. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

PA 674. Internal Medicine Clinical Rotation II.
2 credits.
This is the second of two four-week clinical rotations in internal medicine. The student gains knowledge, experience and skill in interviewing and examining adults, diagnosing and treating disorders, and educating and counseling patients through participation in these activities while under the supervision of an experienced clinician practicing internal medicine. This course also includes assigned readings and exercises. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

PA 675. Pediatrics Clinical Rotation.
2 credits.
During this four-week clinical rotation the student gains knowledge, experience and skill in interviewing and examining children, diagnosing and treating disorders, and educating and counseling children and parents through participation in these activities while under the supervision of an experienced clinician practicing pediatric medicine. The course also includes assigned readings and exercises. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

PA 676. Obstetrics and Gynecology Clinical Rotation.
2 credits.
During this four-week clinical rotation the student gains knowledge, experience and skill in interviewing and examining women, diagnosing and treating disorders, and educating and counseling women through participation in these activities while under the supervision of an experienced clinician practicing obstetric and gynecologic medicine. The course also includes assigned readings and exercises. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

PA 677. General Surgery Clinical Rotation.
2 credits.
During this four-week clinical rotation the student gains knowledge, experience and skill in interviewing and examining patients, diagnosing and treating disorders, and educating and counseling patients with surgical problems through participation in these activities while under the supervision of an experienced clinician practicing surgery. The course also includes assigned readings and exercises. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

PA 678. Emergency Medicine Clinical Rotation.
2 credits.
During this four-week clinical rotation the student gains knowledge, experience and skill in interviewing and examining patients, diagnosing and treating disorders, and educating and counseling patients with emergent problems through participation in these activities while under the supervision of an experienced clinician practicing emergency medicine. The course also includes assigned readings and exercises.
Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.

**PA 679. Behavioral Medicine Clinical Rotation.**
2 credits.
During this four-week clinical rotation the student gains knowledge, experience and skill in interviewing and examining patients, diagnosing and treating disorders, and educating and counseling patients and family members through participation in these activities while under the supervision of an experienced clinician practicing behavioral medicine. The course also includes assigned readings and exercises. Prerequisites: Admission to the physician assistant program and successful completion of all previous courses in the curriculum, or permission of the program director.