

## Graduate Intent to Plan--Major or Degree

NOTE: This "Intent to Plan" form must be submitted and go through the approval process BEFORE you submit the form titled, "Request for Graduate Addition, Deletion or Change of a Major or Degree." For detailed information on new programs please see: <http://wvhepcdoc.wvnet.edu/resources/133-11.pdf>.

1. Prepare one paper copy with all signatures and supporting material and forward to the Graduate Council Chair.
2. E-mail one PDF copy without signatures to the Graduate Council Chair. If attachments are included, please merge into a single file.
3. **The Graduate Council cannot process this application until it has received both the PDF copy and the signed hard copy.**

College: School of Medicine \_\_\_\_\_

Dept/Division: N/A \_\_\_\_\_

Contact Person: Stephen L. Wilson \_\_\_\_\_

Phone: 304-939-1108 \_\_\_\_\_

New Degree Program Master of Medical Science Physician Assistant \_\_\_\_\_

Effective Term/Year

Fall 20

Spring 20

Summer 20

**Information on the following pages must be completed before signatures are obtained.**

Signatures: if disapproved at any level, do not sign. Return to previous signer with recommendation attached.

|                                   |            |
|-----------------------------------|------------|
| Dept. Chair/Division Head _____   | Date _____ |
| College Curriculum Chair _____    | Date _____ |
| College Dean _____                | Date _____ |
| Graduate Council Chair _____      | Date _____ |
| Provost/VP Academic Affairs _____ | Date _____ |
| Presidential Approval _____       | Date _____ |
| Board of Governors Approval _____ | Date _____ |

## Graduate Intent to Plan--Major or Degree-Page 2

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Please provide a rationale for new degree program: (May attach separate page if needed)

See attachment.

**1. ADDITIONAL RESOURCE REQUIREMENTS:** If your new program requires additional faculty, equipment or specialized materials, attach an estimate of the time and money required to secure these items.

NOTE: Approval of this form does not imply approval for additional resources. Enter NONE if not applicable.

**2. NON-DUPLICATION:** If a question of possible duplication occurs, attach a copy of the correspondence sent to the appropriate department(s) describing the request and any response received from them. Enter NONE if not applicable.

No Duplication

*For catalog changes as a result of the above actions, please fill in the following pages.*

### 5. **New Catalog Description**

Insert a 'clean' copy of your proposed description, i.e., no strikethroughs or highlighting included. This should be what you are proposing for the new description. (May attach separate page if needed)

See course descriptions in attachment.

## Graduate Intent to Plan--Major or Degree-Page 4

Please insert in the text box below your summary information for the Graduate Council agenda. Please enter the information exactly in this way (including headings):

Department:

New Major or Degree:

Credit Hours:

Rationale:

School of Medicine

Master of Medical Science Physician Assistant

Credit Hours: 96

Rationale: Three accredited PA programs are located in WV. None of the programs are sponsored by a medical school that includes students and residents in a medical education program. Clinical rotations are outsourced to a variety of clinical settings. The average total tuition cost of the three programs is \$60,193 with a range of \$47,860 - \$79,800.

MU and JCESOM have greater medical and educational resources with the added ability to train PA students at one institution on one extended campus. The quality of basic science education and clinical instruction can be shown to exceed those of state competitors. MU and JCESOM brand can be used to sustain a competitive advantage in the state and region. MUPA program can also provide educational opportunities that include fellowships in varying specialties that will give students a competitive advantage and thus enhance perceived value in Marshall's program.

# Attachment 1

Graduate Intent to Plan  
Master of Medical Science Physician Assistant (MMsPA)  
Joan C. Edwards School of Medicine

Marshall University

Proposed Implementation Date: Spring 2020

Contact Person: Stephen L. Wilson MD, MBA, FACS

Associate Professor of Surgery

E-mail: [Wilsonsl@Marshall.edu](mailto:Wilsonsl@Marshall.edu)

Phone: 304-939-1108

February 21, 2018

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## Brief Program Description

The Joan C. Edwards School of Medicine (SOM) has an interest and intent in developing an accredited Physician Assistant (PA) program at Marshall University (MU). The MU Physician Assistant (MUPA) program will be a twenty-four-month graduate program leading to a Masters of Medical Science Physician Assistant (MMsPA) degree. The SOM working in conjunction with Marshall Health (MH) has the resources to meet the provisional accreditation requirements as noted in the Fourth Edition of the Accreditation Standards for Physician Assistant Education.

Marshall University has the potential to be competitive recruiting students at the state and national level. The MUPA program will add value to the community by providing patients with greater access to care as well as enhancing hospital services at our surrounding teaching hospitals. The clinical departments of Marshall Health will also benefit as students rotate on these services. Our competitive advantage will be gained by creating a team-based approach for patient care utilizing evidence-based, interdisciplinary models in a constant pursuit of educational excellence.

The program will be conducted with an expectation of operational efficiency while maintaining sustained profitability for MU thus allowing continued investment in further educational opportunities. While regional and state competition exists, none are affiliated with an accredited medical school. MUPA program can offer an exceptional training opportunity where PA students can work in collaboration with medical students and resident physicians. Integration with existing academic clinical departments will provide each student a first-rate educational and clinical experience that will enhance their post-graduate opportunities.

MUPA program development is projected to occur over a 24-month period that will start March 2018. The earliest class start date is Jan 2020 as per the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA). Initial cost will consist primarily of salaries that will include a Program Director and Coordinator. Principle Faculty that consists of 3.0 FTE (PA's), Medical Director, Basic Science Instructional Faculty (BSIF) and Clinical Faculty (CF) will be added to the start-up timeline. Faculty startup cost (fixed and variable) have been projected. The initial class will be comprised of 20 students, and ten will be added each subsequent year until there are 50 students per year.

Financial projections were based on the creation of a 24-month program using tuition cost based on the national average. SOM can create an economy of scale using its existing educational and clinical resources and create value for students as well as a sustained institutional profit.

## I. Physician Assistant Employment Data

In 2014, there were 94,400 PA's who were employed, and employment growth between 2014 and 2024 is projected to be 30% or more (1).

Employment estimate and mean wage estimates for this occupation:

| Employment | Employment RSE | Mean hourly wage | Mean annual wage | Wage RSE |
|------------|----------------|------------------|------------------|----------|
| 104,050    | 1.6 %          | \$49.08          | \$102,090        | 0.4 %    |

Percentile wage estimates for this occupation:

| Percentile  | 10%      | 25%      | 50% (Median) | 75%       | 90%       |
|-------------|----------|----------|--------------|-----------|-----------|
| Hourly Wage | \$31.55  | \$41.41  | \$48.79      | \$58.37   | \$68.37   |
| Annual Wage | \$65,620 | \$86,130 | \$101,480    | \$121,420 | \$142,210 |

| Industry   | Employment | Percent (%) of industry employment | Hourly mean wage | Annual mean wage |
|--|------------|------------------------------------|------------------|------------------|
| <a href="#">Offices of Physicians</a>  | 59,680     | 2.37                               | \$48.83          | \$101,560        |
| <a href="#">Outpatient Care Centers</a>                                      | 8,060      | 0.97                               | \$51.80          | \$107,740        |
| <a href="#">General Medical and Surgical Hospitals</a>                       | 23,460     | 0.43                               | \$49.79          | \$103,570        |
| <a href="#">Specialty (except Psychiatric and Substance Abuse) Hospitals</a> | 770        | 0.30                               | \$49.68          | \$103,330        |
| <a href="#">Offices of Other Health Practitioners</a>                        | 1,330      | 0.16                               | \$44.98          | \$93,570         |



## II. INDUSTRY (EDUCATION) ANALYSIS AND TRENDS

There are 225 Accreditation Review Commission (ARC) – Physician Assistant (PA) programs currently in the United States, three of which are in West Virginia. PAs are healthcare professionals who practice medicine as members of a team with their supervising physician. PAs are educated in intensive medical programs accredited by the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA). The average PA program curriculum runs approximately 26 months. PAs are educated in the medical model designed to complement physician training. Most PA programs accredited today offer a master’s degree. PAs are required to take ongoing continuing medical education classes and to be retested on their clinical skills on a regular basis. PA’s deliver a broad range of medical and surgical services to diverse populations in rural and urban settings. As part of their comprehensive responsibilities, PAs conduct physical exams, diagnose and treat illnesses, order, and interpret tests, counsel on preventative health care, assist in surgery, and prescribe medications. Physicians may delegate to PAs those medical duties that are within the physician’s scope of practice and the PA’s training and experience. All fifty states, the District of Columbia and Guam authorize PAs to prescribe. PAs are certified by the National Commission on Certification of Physician Assistants (NCCPA) and are state licensed. State medical and PA practice acts and regulations allow physician’s broad delegator authority, which permits flexible, customized team practice. Many PAs work in general or family medicine, general surgery, surgical subspecialties or emergency medicine. (1)

## III. ACCREDITATION

Accreditation Review Commission on Education for the Physician Assistant (ARC-PA) is the accrediting agency that protects the interests of the public and physician assistant profession by defining the standards for physician assistant education and evaluating physician assistant educational programs within the territorial United States to ensure their compliance with those criteria (2). Physician Assistant Educational Association (PAEA) is the only national organization representing physician assistant educational programs in the United States. Currently, all the accredited programs in the country are members of the Association. PAEA provides services for faculty at its member programs, as well as to applicants, students, and other stakeholders. The Association was founded in 1972 as the Association of Physician Assistant Programs (3).

## IV. Competition

Alderson-Broaddus University, University of Charleston, and West Liberty University are the PA programs currently accredited in West Virginia.

|    |                              | Accredited | Next ARC-PA Visit |
|----|------------------------------|------------|-------------------|
| WV | Alderson-Broaddus University | 9/4/2010   | September 2023    |
| WV | University of Charleston     | 9/8/2012   | September 2026    |
| WV | West Liberty University      | 9/9/2011   | March 2025        |

### Alderson- Broaddus University PA Program

Philippi, WV

Pioneered nations first four year PA program

36 students/year

GRE required

Bachelor's degree required

Healthcare experience not required

27-month program

Master of Science in PA Studies (MSPAS)

Total Tuition Cost - \$47,860

### West Liberty University PA Program

Wheeling, West Virginia

18 students/year

GRE/MCAT not required

Bachelor's degree required

Healthcare experience not required

24 – Month program

Master of Science in PA Studies (MSPAS)

Total Tuition Cost -\$52,920

### University of Charleston PA Program

Charleston, WV

30 students/year

GRE required

Bachelor's degree required

Healthcare experience not required

28 – Month program

Master of Physician Assistant Studies (MPAS)

Total Tuition Cost -\$79,800

## V. Strategic Position

Three accredited PA programs are located in WV. None of the programs are sponsored by a medical school that includes students and residents in a medical education program. Clinical rotations are outsourced to a variety of clinical settings. The average total tuition cost of the three programs is \$60,193 with a range of \$47,860 - \$79,800.

MU and JCESOM have greater medical and educational resources with the added ability to train PA students at one institution on one extended campus. The quality of basic science education and clinical instruction can be shown to exceed those of state competitors. MU and JCESOM brand can be used to sustain a competitive advantage in the state and region. MUPA program can also provide educational opportunities that include fellowships in varying specialties that will give students a competitive advantage and thus enhance perceptive value in Marshall's program.

The growth of PA employment opportunities is expected to increase by 30% by 2024. The MUPA program can compete within the state using a broad target for student acquisition and differentiation for a competitive advantage if student value is created as a perception. Utilizing cost leadership, out of state tuition, which traditionally is greater than in state, can be used as well in the competitive scope.

Innovation by the development of an online or hybrid online PA program will be used by institutions to create a sustained competitive advantage. An online PA program would fully incorporate didactic online programming resulting in the completion of a master's degree without any prior PA training (no certificate, associates or bachelor's degree in PA studies). In March 2015, Yale University introduced an online PA program and there have been mixed feelings from across the PA and physician community. The ARC-PA did approve Yale's proposal. Yale's program is intended to be a blend of online courses and clinical clerkships, helping to meet the demands of PAs in primary care and underserved areas all over the US by matching the size of its current program in its first year (12 students beginning at three separate times each year). The program plans to expand to approximately 350 students within 5+ years and plans to work with an online education company called [2U](#). Requirements for admission to the program *would be the same* as those currently required at Yale's prestigious PA program. This is contrary to popular belief that students admitted to this program would somehow be less qualified. Clinical sites would be selected by the program faculty with specificity to each student's location and career goals, maintaining a very student-specific agenda. Tuition costs to each matriculant of the program would be the same as those to the current Yale PA Program, approximately \$87,330.

## VI. Provisional Accreditation Process and Time Line (3)

### A. Institution Eligibility Requirements (All Requirements met by Marshall)

- Geographically located in the United States
- Single institution must be defined as sponsor of the program
- Authorized under applicable law to provide a program of post-secondary education
- Accredited by and in good standing with a regional accrediting agency
- Authorized by this agency to confer a graduate degree

## B. Senior institutional official submits a formal written request for entry into the process including confirmation of institutional eligibility

- Program receives correspondence from the ARC-PA regarding dates of the site visit and confirming placement on ARC-PA meeting agenda
- Attend mandatory Provisional Pathway Conference
- Program proposes dates and pays required fees
- ARC-PA chooses and confirms site visit dates
- Program obtains application packet from ARC-PA

## C. Submit completed application materials as received from ARC-PA

- **Due Date:** 3 months before site visit

## D. The provisional process includes three visits

- A permanent qualified program director must be in place 12 months before the date of the ARC-PA meeting at which the program application will be reviewed

### Visit 1: Initial Provisional Visit

- This visit verifies an institution's ability to begin a program in compliance with the *Standards*, and the program's readiness to matriculate students
- Occurs 6 to 12 months prior to matriculation of students
- After commission review, the program is eligible to receive accreditation – provisional
- (If accreditation withheld, program may reapply from beginning of process)
- The program must **update** the personnel section of the Program Management Portal to reflect current program faculty -**Date Due:** 2 months before students begin
- The program must update the SCPE tab of the Program Management Portal – **Date Due:** 3 months before students begin clinical rotations

### Visit 2: Provisional Monitoring Site Visit

- This visit verifies the sponsoring institution's and provisionally accredited program's progress in delivering the program in compliance with the *Standards* and their ability to continue to do so.
- Scheduled within the six months prior to graduation of the first cohort of students
- After commission review, the program is eligible to continue as **accreditation - provisional**

### Visit 3: Final Provisional Site Visit

- This visit verifies the institution's and program's demonstration of compliance with the *Standards* including their ability to incorporate and report the findings of a robust self-assessment process as required by the ARC-PA
- Occurs 18-24 months following the second provisional review by the commission
- After commission review, the program is eligible for an accreditation status of **accredited**.

## VII. Program Requirements

### A. Administration (4)

- The administrative operation of a PA program involves collaboration between the faculty and administrative staff of the program and the sponsoring institution
- When more than one institution is involved in the provision of academic and/or clinical education, responsibilities of the respective institutions for instruction and supervision of students must be described and documented in a manner signifying agreement by the involved institutions
- The sponsoring institution is responsible for: a) supporting the planning by program faculty of curriculum design, course selection and program assessment, b) hiring faculty and staff, c) complying with ARC-PA accreditation Standards and policies, d) permanently maintaining student transcripts, e) conferring the credential and/or academic degree which documents satisfactory completion of the educational program, f) ensuring that all PA personnel and student policies are consistent with federal and state statutes, rules and regulations, g) addressing appropriate security and personal safety measures for PA students and faculty in all locations where instruction occurs and h) teaching out currently matriculated students in accordance with the institution's regional accreditor or
- The sponsoring institution must provide the opportunity for continuing professional development of the program director and principal faculty by supporting the development of their clinical, teaching, scholarly and administrative skill
- The sponsoring institution must provide academic and student health services to PA students that are equivalent to those services provided other comparable students of the institution
- The sponsoring institution should provide PA students and faculty at geographically distant campus locations comparable access to services and resources that help students reach their academic and career goals similar to those available to students and faculty on the main campus
- The sponsoring institution must provide the program with sufficient financial resources to operate the educational program and fulfill obligations to matriculating and enrolled students
- The sponsoring institution must provide the program with the human resources necessary to operate the educational program and to fulfill obligations to matriculating and enrolled student
- The sponsoring institution must provide the program with the physical facilities to operate the educational program to fulfill obligations to matriculating and enrolled students
- The sponsoring institution must support the program in securing clinical sites and preceptors in sufficient numbers for program-required clinical practice experience

### B. Faculty

The program must have program faculty that include the program director, principal faculty, medical director and instructional faculty

- The program director must be assigned to the program on a 12-month full-time basis. At least 80% of that time should be devoted to academic and administrative responsibilities in support of the program
- The program must have at least three FTE principal faculty positions. Two FTE principal faculty positions must be filled by PA faculty who currently are NCCPA-certified
- Principal faculty must be sufficient in number to meet the academic needs of enrolled students

- Principal faculty and the program director should have academic appointments and privileges comparable to other faculty with similar academic responsibilities in the institution
- Principal faculty and the program director must actively participate in the processes of: a) developing, reviewing, and revising as necessary the mission statement for the program, b) selecting applicants for admission to the PA program, c) providing student instruction, d) evaluating student performance, e) academic counseling of students, f) assuring the availability of remedial instruction, g) designing, implementing, coordinating, evaluating curriculum and h) evaluating the program
- The program director must be a PA or a physician. a) If the program director is a PA, s/he must hold current NCCPA certification. b) If the program director is a physician, s/he must hold current licensure as an allopathic or osteopathic physician in the state in which the program exists and must be certified by an ABMS- or AOA approved specialty board
- The program director must not be the medical director
- The program director must provide effective leadership and management
- The program director must be knowledgeable about and responsible for program: a) organization, b) administration, c) fiscal management, d) continuous review and analysis, e) planning, f) development and g) participation in the accreditation process
- The medical director must be: a) a currently licensed allopathic or osteopathic physician<sup>1</sup> and b) certified by an ABMS- or AOA approved specialty board
- Instructional faculty must be: a) qualified through academic preparation and/or experience to teach assigned subjects and b) knowledgeable in course content and effective in teaching assigned subjects
- In each location to which a student is assigned for didactic instruction or supervised clinical practice experiences, there must be an instructional faculty member designated by the program to assess and supervise the student's progress in achieving learning outcomes
- There must be at least a 1.0 FTE position, which should be dedicated exclusively to the program, to provide administrative support for the program

## VIII. Program Upstart Cost Evaluation

Expenditures to create a PA program is a significant expense in personnel regardless of the institution and share many characteristics with physical capital (5). Yearly and Hooker (2016) completed a 10-year study of the financial impact of the University of Tennessee PA program from its inception. The first ten years of operation was \$10.5 M and the break-even point occurred in year eight based on tuition revenue of \$8.4 M. Remodeling classrooms, a laboratory; patient examination simulation spaces were significant expenses. Unanticipated events delayed implementation resulting in cost over runs, but in retrospect, many could have been avoided. In the end, The University of Tennessee's Physician Assistant program's opportunity cost for a student was \$1200 per month (5).

MU and JCESOM have the advantage of utilizing current basic science and clinical instructors currently employed. The use of existing classrooms, medical library, simulation labs, and clinical facilities will decrease the fixed and variable expenses of the program. Value chain alignment with the current medical educational and resident training model will optimize operational efficiency and economies of scope can be realized.

## IX. Graduate Degree – ARC-PA Requirements

The ARC-PA does not recommend a specific degree but is requiring programs to offer a graduate degree in PA studies after December 31, 2020. Current accredited programs provide varying graduate degrees that include Master of Science (MS), Master of PA Studies (MPAS), Master of Science in PA Studies (MSPAS), Master of PA Practice (MPAP), Master of Health Science (MHS), and Master of Science in Health Science (MSHS).

Any of the following degrees can be created and located either within MU or JCESOM. This process would be facilitated by the Graduate College of Marshall University.

The ARC-PA will allow a program to develop its academic graduate program during the provisional accreditation time interval before the start of the first class.

## X. Project Time Line

The following email was sent in correspondence concerning provisional accreditation.

Dr. Wilson,

Thank you for contacting the ARC-PA regarding developing a Physician Assistant program and beginning the provisional accreditation process. Many questions regarding accreditation and the accreditation process can be answered by visiting our website at [www.arc-pa.org](http://www.arc-pa.org). A flow chart detailing the provisional accreditation process, the Accreditation Standards, and an accreditation manual are all available on our website. If you would like to move forward and to confirm the institution's eligibility for applying for accreditation-provisional, the attached Applicant Program Information Form must be completed in full and returned to the ARC-PA at the email address listed at the end of the form. Prior to submitting the form, the ARC-PA strongly encourages you to review the material on the website.

The next commission agenda available for review of an application for provisional accreditation is June 2019, which would allow for a program start no earlier than August 2019, provided the program is provisionally accredited at the meeting.

Note that attendance at an ARC-PA Provisional Accreditation Conference is mandatory in order for a program to be considered on a commission agenda. The conference is held annually and is specifically designed for individuals from institutions who are considering beginning a PA program or are in the process of developing a new PA program in preparation for applying to the ARC-PA for provisional accreditation. More information can be found on our website at the link above.

Best regards,

Heather McGovern

Assistant Director, Accreditation Services

ARC-PA

12000 Findley Road, Suite 275

Johns Creek, GA 30097

Phone: 770-476-1224

Fax: 770-476-1738

Email: [heather@arc-pa.org](mailto:heather@arc-pa.org)

[www.arc-pa.org](http://www.arc-pa.org)

**See Appendix 1**



**Marshall University, Joan C. Edwards School of Medicine and Marshall Health have current resources required for ARC-PA provisional accreditation.**

**XI. Curriculum/Prerequisites**

The ARC-PA provide strict criteria and guidelines concerning program curriculum that must be met to obtain both provisional and full accreditation. The establishment of this curriculum is designed to provide an educational experience that will enable the graduate to complete the Physician Assistant National Certifying Exam (PANCE) for postgraduate certification (PA-C). The following is a hybrid version of the number one and two ranked PA programs in the US (Yale and George Washington University).

Prerequisites are not strictly outlined by ARC-PA and vary among accredited programs. MUPA would use the following and are analogous to the top-ranked programs (Yale and George Washington University).

**Academic Requirements:**

To be considered for regular admission applicants must have:

- a. A bachelor’s degree from a college or university accredited by an agency recognized by the U.S. Department of Education.
- b. A minimum 3.0 (CASPA-calculated undergraduate cumulative grade point average (GPA).
- c. A minimum 3.0 CASPA-calculated overall science GPA.

Applicants must complete the following prerequisite coursework (documented via official Transcripts).

| Course Semesters  | Minimum Credits |     |
|---|-----------------|-----|
| a. Human Anatomy and Physiology with lab                    | 2               | 8   |
| b. General or Introductory Chemistry with lab               | 1               | 4   |
| c. Gen. or Intro. Biochemistry (or Organic Chemistry w/lab) | 1               | 3   |
| d. General or Intro. Microbiology with lab                  | 1               | 4   |
| e. Abnormal Psychology                                      | 1               | 3   |
| f. Developmental Psychology (Child/Life Span)               | 1               | 3   |
| g. Mathematics (preferably statistics)                      | 1               | 3   |
| h. Medical Terminology                                      | 1               | 1-3 |

### Year 1, Semester 1 (Academic)

| <b>Title</b>                           | <b>Credits</b> |
|--|----------------|
| Clinical Assessment I                  | 4              |
| Integration into Clinical Concepts I   | 2              |
| Foundations of Medicine                | 5              |
| Evidence Based Practice – PA Students  | 3              |
| Physiology for Health Science Students | 3              |
| Anatomy for Health Science Students    | 3              |
| <b>Total Semester Credits</b>          | <b>20</b>      |

### Year 1, Semester 2 (Academic)

| <b>Title</b>                          | <b>Credits</b> |
|---------------------------------------|----------------|
| Clinical Assessment II                | 1              |
| Integration into Clinical Concepts II | 2              |
| Clinical Medicine I                   | 7              |
| Clinical Skills I                     | 2              |
| Health, Justice, & Society I          | 2              |
| Human Behavior                        | 2              |
| Role of PA in American Health Care    | 2              |
| Basic Principles of Pharmacology      | 2              |
| <b>Total Semester Credits</b>         | <b>20</b>      |

### Year 1, Semester 3 (Academic)

| <b>Title</b>                               | <b>Credits</b> |
|--|----------------|
| Clinical Assessment III                    | 1              |
| Integration into Clinical Concepts III     | 2              |
| Clinical Medicine II                       | 7              |
| Clinical Skills II                         | 1              |
| Health, Justice, & Society II              | 1              |
| Clinical Specialties                       | 6              |
| Pharmacology in Disease<br>Pathophysiology | 2              |
| <b>Total Semester Credits</b>              | <b>20</b>      |

## **Course Descriptions**

### **Clinical Assessment I. 4 Credits.**

This is the first in a series of courses designed to develop the knowledge and skills required to obtain and record the complete medical history, use of appropriate equipment, proper techniques, and accurate medical terminology to document findings; course will provide an overview of the medical record as well as development of writing and organizational skills for medical record keeping and oral presentation skills. Skills will be developed through structured laboratory exercises and community experiences.

### **Clinical Assessment II. 1 Credit.**

This is the second in a series of courses designed to develop the knowledge and skills required to obtain and record the complete medical history, use of appropriate equipment, proper techniques, and accurate medical terminology to document findings; course will provide an overview of the medical record as well as development of writing and organizational skills for medical record keeping and oral presentation skills. Skills will be developed through structured laboratory exercises and community experiences.

### **Clinical Assessment III. 1 Credit.**

This is the third in a series of courses designed to develop the knowledge and skills required to obtain and record the complete medical history, use of appropriate equipment, proper techniques, and accurate medical terminology to document findings; course will provide an overview of the medical record as well as development of writing and organizational skills for medical record keeping and oral presentation skills. Skills will be developed through structured laboratory exercises and community experiences.

### **Integration into Clinical Concepts I. 2 Credits.**

This is the first in a series of courses designed to allow students to apply knowledge gained in concurrent didactic courses to clinical problems and to clinical decision making. The course is conducted by faculty facilitators in a small-group discussion format.

### **Integration into Clinical Concepts II. 2 Credits.**

This is the second in a series of courses designed to allow students to apply knowledge gained in concurrent didactic courses to clinical problems and to clinical decision making. Builds upon skills learned in Clinical Concepts I. The course is conducted by faculty facilitators in a small-group discussion format.

### **Integration into Clinical Concepts III. 2 Credits.**

This is the third in a series of courses designed to allow students to apply knowledge gained in concurrent didactic courses to clinical problems and to clinical decision making. Builds upon skills learned in Clinical Concepts I and II. The course is conducted by faculty facilitators in a small-group discussion format.

### **Foundations of Medicine. 5 Credits.**

This course is designed to develop an understanding of normal physiology, genetics, pathologic and pathophysiologic concepts of diseases per organ system. The physiology component covers normal physiology for the organ systems under study. The genetics component introduces the concepts of patterns of inheritance, formulation of the family history, reviews genetic abnormalities and pharmacogenomics. Indications for genetic testing and counseling are also reviewed. The microbiology component covers how to identify the various pathogens responsible for human disease. Topics covered include bacteriology, mycology, parasitology, and virology. Pathophysiology explores the etiology of organic and systemic disease.

### **Evidence Based Practice for PA Students. 3 Credits.**

Introduction to research including methodology, statistical analyses, formulating research questions, and evaluating research designs with an emphasis on studies assessing therapeutic interventions, diagnostic testing, and prognostic indicators of health and disease as part of evidence-based clinical practice.

### **Evidence Based Practice for PA/MPH Students. 1 Credit.**

Advanced application of research-, statistical-, and evidence-based medicine concepts presented in public health courses. Emphasis on studies assessing therapeutic interventions, diagnostic testing, and prognostic indicators of health and disease.

### **Clinical Medicine I. 7 Credits.**

This is the first in a series of courses designed to provide an intensive study of human diseases and disorders, using a lifespan approach from pediatrics to geriatrics, in the areas of clinical medicine including epidemiology, etiology, historical data, clinical manifestations, progression, therapeutic management, prevention, laboratory medicine, and prognosis. Emphasis will be on disease processes common to primary care practices, and the development of differential diagnoses and plan based upon the patient's clinical presentation.

### **Clinical Medicine II. 7 Credits.**

This is the second in a series of courses designed to provide an intensive study of human diseases and disorders, using a lifespan approach from pediatrics to geriatrics, in the areas of clinical medicine including epidemiology, etiology, historical data, clinical manifestations, progression, therapeutic management, prevention, laboratory medicine, and prognosis. Emphasis will be on disease processes common to primary care practices, and the development of differential diagnoses and plan based upon the patient's clinical presentation.

### **Clinical Skills I. 2 Credits.**

Development of diagnostic and therapeutic skills essential to clinical practice. Fundamentals of electrocardiography and interpretation of basic EKG patterns. Effects of drugs and electrolyte imbalance on EKG patterns. Interpretation of radiologic films.

**Clinical Skills II. 1 Credit.**

Development of diagnostic and therapeutic skills essential to clinical practice. Fundamentals of electrocardiography and interpretation of basic EKG patterns. Effects of drugs and electrolyte imbalance on EKG patterns. Interpretation of radiologic films.

**Health, Justice, and Society I. 2 Credits.**

Presentation and discussion of issues including social determinants of health, cultural competency, ethical principles, epidemiology, and patient safety.

**Health, Justice, and Society II. 1 Credit.**

Students interact with community clinicians and/or members of communities with vulnerable populations, developing communication and team practice skills through participation in team projects.

**Human Behavior. 2 Credits.**

Basic knowledge of psychiatry needed to enter clinical practice. Mental status examination as a tool of clinical assessment. Approaches to understanding and working with patients with mental health conditions.

**Clinical Specialties. 6 Credits.**

Foundations of patient management in surgical, pediatric, and emergency medicine.

**Role of PA in American Health Care. 2 Credits.**

The history, development, and current status of the physician assistant profession within the context of the U.S. health system, such as practice roles, legal issues, and economic aspects of the profession.

**Physiology for Health Sciences Students. 3 Credits.**

Functional processes, including cellular, muscular, cardiovascular, renal, pulmonary, gastrointestinal, endocrine, and nervous systems.

**Anatomy for Health Sciences Students. 3 Credits.**

A gross anatomy course that includes examination of prosected cadavers. Sessions on how to conduct a physical examination of a particular body region are preceded immediately by lectures on the same region.

**Basic Principles of Pharmacology. 2 Credits.**

This is the first in a series of courses designed to develop skills related to the principles of pharmacology as they pertain to therapeutic agents, prescription and non-prescription. Discussion will include the principal mechanisms of action of the major classes of therapeutic agents, understanding of pharmacodynamics, uses, side effects, and toxicities.

**Pharm in Dis. Pathophysiology. 2 Credits.**

This is the second in a series of courses designed to develop skills related to the principles of pharmacology as they pertain to therapeutic agents, prescription and non-prescription. Discussion will include the principal mechanisms of action of the major classes of therapeutic agents, understanding of pharmacodynamics, uses, side effects, and toxicities.

| Clinical Year Courses 2017-2018* |               |                    |                   |     |                |            |              |              |     |                     |                            |              |                 |            |             |                |
|----------------------------------|---------------|--------------------|-------------------|-----|----------------|------------|--------------|--------------|-----|---------------------|----------------------------|--------------|-----------------|------------|-------------|----------------|
| Jul                              | Aug           | Sept               | Oct               | Nov | Dec            | Jan        | Feb          | Mar          | Apr | May                 | Jun                        | July         | Aug             |            |             |                |
| Summer Break                     | Bridge Course | Emergency Medicine | Internal Medicine |     | Women's Health | Pediatrics | Winter Break | Primary Care |     | Behavioral Medicine | Evidence-Based Practice II | Spring Break | General Surgery | Elective I | Elective II | Senior Seminar |

\*Example – sequence of clinical rotations will vary

## Clinical Rotations

Emergency Medicine – One Month

Internal Medicine – Two Months

Women's Health – One Month

Pediatrics – One Month

Family Medicine – Two Months

Behavioral Medicine – One Month

Evidence-Based Practice II – One Month

General Surgery – One Month

Elective – Two Months

## **Required Clinical Course**

### **Primary Care 1 & 2**

Eight-week rotation - Clinical instruction in the principles of Family Medicine and their application in community practice. Students are introduced to problems commonly encountered by family physicians and physician assistants, as well as to the unique aspects of community practice. Students confront the diversity of community and family health care needs, as well as occupational and environmental issues impacting health and learn about some of the resources to meet those needs. Credit: 8

### **Behavioral Medicine**

Four-week rotation - Clinical instruction in the principles of the care of patients with psychiatric illness and behavioral disorders. Rotation sites may provide students with inpatient, outpatient, or mixed experiences. This rotation facilitates the acquisition of communication and behavioral modification skills which are useful in the primary care setting. Credits: 4.

### **Internal Medicine 1 & 2**

Eight-week rotation - Clinical instruction in the principles of general internal medicine and its application in clinical practice. Students are introduced to problems commonly encountered in inpatient and/or community internal medicine practice. Students confront a diversity of health care needs and issues impacting general medical health and learn about resources required to meet those needs. Credits: 8

### **Women's Health**

Four-week rotation - Clinical instruction in the principles of obstetrics and gynecology. Emphasis is placed on preventive gynecologic care, common gynecologic complaints, and prenatal care. Credits: 4.

### **Pediatrics**

Four-week rotation - Clinical instruction in the principles of pediatric care in the outpatient setting. Students are introduced to problems commonly encountered by pediatric primary care providers, as well as unique aspects of community based pediatric medicine. Special emphasis is placed on communication skills and relating sensitively to both children and parents. The student gains familiarity with normal growth and development, pediatric preventive medicine, and evaluation and management of common childhood illnesses. Credits: 4.

### **General Surgery**

Four-week rotation - Clinical instruction in the principles of surgery and the development of surgical skills. Special emphasis is placed on preoperative evaluation and preparatory procedures, assisting at the operating table, and management of patients through the postoperative period. Credits: 4

### **Emergency Medicine**

This four-week rotation - Clinical instruction in the principles of emergency medicine. Students are introduced to medical and surgical problems commonly encountered in the emergency department setting. The emphasis is on gaining outpatient procedural skills, triage of patients, and learning to recognize and begin treatment of emergent medical and surgical problems. Credit: 4.

## II. Financial and Upstart Cost Estimate – Basic Science/Clinical Sciences

**Anatomy** - Instructor Cost = 3 credit hours + 3hrs/week lab = \$28,000/year

Facility = \$4,000/year + \$18,000/year (cadaver - \$1500 x 12)

Total = \$50,000/50 students

**Pharmacology** – Instructor Cost = 4 credit hours = \$300 x (16 weeks x 4 hours) = \$19,200/year

**Physiology** - Instructor cost = 3 credit hours = \$300 x (16 weeks x 3 hours) = \$14,400/year

| JCESOM - PA Program   |              |                |                       |                |              |              |              |
|---|--------------|----------------|-----------------------|----------------|--------------|--------------|--------------|
| Projected Financials  |              |                |                       |                |              |              |              |
|   | Year 1       | Year 2         | Year 3 <sup>(1)</sup> | Year 4         | Year 5       | Year 6       | Year 7       |
| Total Students/Year   | -            | -              | 20                    | 30             | 40           | 50           | 50           |
| Total Students  | -            | -              | 20                    | 50             | 70           | 90           | 100          |
| Tuition Rate/Student/Year   | -            | -              | 43,500                | 43,500         | 43,500       | 43,500       | 43,500       |
| <b>Revenues</b>   |              |                |                       |                |              |              |              |
| Tuition   | \$ -         | \$ -           | \$ 870,000            | \$ 2,175,000   | \$ 3,045,000 | \$ 3,915,000 | \$ 4,350,000 |
| Fees  | -            | -              | 30,000                | 75,000         | 105,000      | 135,000      | 150,000      |
| Application Fees  | -            | 2,000          | 2,500                 | 3,000          | 3,000        | 3,000        | 3,000        |
| Total Revenue   | -            | 2,000          | 902,500               | 2,253,000      | 3,153,000    | 4,053,000    | 4,503,000    |
| <b>Expenses</b>   |              |                |                       |                |              |              |              |
| Program Director  | 166,320      | 171,310        | 176,449               | 181,742        | 187,195      | 192,810      | 198,595      |
| Program Coordinator   | 44,100       | 46,305         | 48,620                | 51,051         | 73,604       | 77,284       | 81,148       |
| MD <sup>(2)</sup>   | 43,302       | 44,601         | 45,939                | 47,317         | 48,737       | 50,199       | 51,705       |
| Program Faculty   | -            | 326,675        | 326,675               | 431,675        | 444,625      | 457,964      | 471,703      |
| Basic Science Faculty   | -            | -              | 73,100                | 81,480         | 137,130      | 143,987      | 151,186      |
| Clinical Salary   | -            | -              | 125,000               | 222,500        | 352,500      | 432,500      | 450,000      |
| Administrative Support  | -            | 87,500         | 137,500               | 144,375        | 151,594      | 159,173      | 167,132      |
| Subtotal - Salaries   | 253,722      | 676,391        | 933,283               | 1,160,141      | 1,395,384    | 1,513,917    | 1,571,469    |
| Facility Cost   | -            | 300,000        | 200,000               | 225,000        | 236,250      | 248,063      | 260,466      |
| Other Expenses  | 50,000       | 200,000        | 200,000               | 125,000        | 131,250      | 137,813      | 144,703      |
| Fees Remitted to Campus   | -            | -              | 22,500                | 56,250         | 78,750       | 101,250      | 112,500      |
| Total Expenses  | 303,722      | 1,176,391      | 1,355,783             | 1,566,391      | 1,841,634    | 2,001,042    | 2,089,138    |
| Net Income  | \$ (303,722) | \$ (1,174,391) | \$ (453,283)          | \$ 686,609     | \$ 1,311,366 | \$ 2,051,958 | \$ 2,413,862 |
| Cumulative  | \$ (303,722) | \$ (1,478,113) | \$ (1,931,396)        | \$ (1,244,787) | \$ 66,578    | \$ 2,118,536 | \$ 4,532,398 |
| <b>Notes:</b>   |              |                |                       |                |              |              |              |
| (1) - Year 3 represents the first class of students.  |              |                |                       |                |              |              |              |
| (2) - MD Projected Expense represents a portion of an existing physician that will assist in program oversight. |              |                |                       |                |              |              |              |

Financial projections are determined after a series of meetings with representative from Marshall Health, JCESOM, and Marshall Biomedical Science Department.



## Cited References

1. <https://www.bls.gov/ooh/healthcare/physician-assistants.htm>
2. <http://www.arc-pa.org/>
3. <http://paeaonline.org/>
4. [http://paeaonline.org/wp-content/uploads/2017/06/Program-Survey-31\\_V4\\_Updated-June-2017.pdf](http://paeaonline.org/wp-content/uploads/2017/06/Program-Survey-31_V4_Updated-June-2017.pdf)
5. Yealy J, Hooker RS (2016) Development Costs of Inaugurating a Physician Assistant Program. *J Community Med Health Educ* 6:454. doi:10.4172/2161-0711.1000454

## **Appendix 1—Applicant Program Information**

For institutions considering developing an entry-level PA program and seeking provisional accreditation

Only those institutions which are actively engaged in establishing a program for the education of physician assistants (PA) are eligible for provisional accreditation. The provisional accreditation process involves a thorough review of the planning, organization, and proposed content of a program that is in the advanced planning stages but not yet operational.

Institutions planning to develop a program and apply for accreditation-provisional which do not meet these eligibility requirements will not be considered by the ARC-PA.

(Enter requested information by clicking on red text fields. Select from dropdown list by clicking on red text fields labeled “Select...” then clicking the arrow on the right.)

Institution Name

Individual responsible for PA program development (and who will receive ARC-PA correspondence):

**\*\*Please note that the ARC-PA will not consider a consultant as the individual responsible for the development of the PA program. If there is a change in the individual responsible for program development at any time during the provisional accreditation process, inform the ARC-PA immediately.\*\***

Name and Credentials

Institutional Title

Address 1

Address 2

City, State and Zip

Email

Phone

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Please complete the following:

I have read the Standards (4th edition, revised as of 03/2016) (<http://arc-pa.org/documents/Standards%204th%20Ed%20March%202016.pdf>) with attention to the Eligibility Section and Section D. Select yes/no

I understand that attendance at an ARC-PA Provisional Accreditation Conference (<http://www.arc-pa.org/accreditation/resources/workshops-and-conferences/>) is a required component of the Provisional application process. Select yes/no

Criteria:

There is ONE clearly defined Sponsoring Institution. Select yes/no

Name of sponsoring institution:

The sponsoring institution is accredited by, and in good standing with, a recognized Regional Accrediting Agency. Select yes/no

Name of Regional Accrediting Agency: Select an agency

The institution is authorized by the above agency to confer upon graduates of the PA program a graduate degree. Select yes/no

Academic credential to be awarded upon graduation: Academic credential

The proposed PA program is to be offered by, or located within, an institution chartered by and physically located within the United States and where students are to be geographically located within the United States for their education. Select yes/no

The appropriate senior institutional official or governance board has granted approval to pursue the development and accreditation for the establishment of a Physician Assistant program. Select yes/no

In answering the questions below, please note the following:

(a) The site visit component of the evaluation process must take place:

- i. within six to 12 months of matriculation of students, and
- ii. sometime during August, September, October or November for a March meeting; December, February or March for a June meeting and April, May or June for a September meeting.

(b) Application materials are due 3 months before the site visit.

(c) A permanent Program Director must be in place 12 months before the application is considered on a commission agenda.

(d) Programs are placed on agendas that would allow for a program start no earlier than four months after being granted provisional accreditation; e.g., if a program is on a March agenda, it may start no earlier than July; if on a June agenda, no earlier than October and if on a September agenda, no earlier than January.

(e) The earliest commission agenda that MAY be available for review of the application is 2019 June, which would allow for a program start no earlier than 2019 October if the program is provisionally accredited.

The date we are considering starting the program is Month of Year (1st choice) or  
Month of Year (2nd choice)

The length of the proposed program (stated in months): Length of program

How many students do you propose, or estimate you may have, in the:

- First entering class: Number of students
- Second entering class: Number of students
- Third entering class: Number of students

I understand that the program will be subject to denial of accreditation and to denial of future eligibility for accreditation in the event that any of the statements or answers made in this document or the application are false or in the event that the program violates any of the rules or regulations governing applicant programs.

Form submitted by: Name

The name entered above is deemed an electronic signature.

Title: Title

Date: Date

Form completed by: Name

If different than person submitting. The name entered above is deemed an electronic signature.

Title: Title

Date: Date

Submit completed form to: [accreditationservices@arc-pa.org](mailto:accreditationservices@arc-pa.org) with “Applicant Program Information Form” in the subject line.

You will receive a response within 15 business days of receipt of this form.

“The next commission agenda available for review of an application for provisional accreditation is June 2019, which would allow for a program start no earlier than October 2019, provided the program is provisionally accredited at the meeting” as noted per email. A proposed timeline:

1. Jan 2018

- Establish a program director, program coordinator, retain consultation services
- Application to ARC-PA for provisional accreditation

2. Feb-Dec 2018

- Acquisition of Graduate Studies affiliation and development of curriculum including basic sciences and clinical rotations
- Negotiations of cost of basic science and clinical staff
- Continuation of provisional accreditation process
- Logistical development of physical operations

3. Jan – 2019

Establish Principle and Basic Science Instructor facility

4. June – 2019

Commission Site Review

5. August -2019

Earliest Class Start Date