

University Saint Francis and Manchester University Articulation Agreement for the University Saint Francis Physician Assistant Program

The University of Saint Francis (USF), in conjunction with Manchester University, work cooperatively in assisting highly qualified undergraduate students to enter the profession of Physician Assistant. This agreement will facilitate entrance into the Physician Assistant Studies Program at USF for such students. The following principles apply to the guaranteed admission program.

Students enrolled at Manchester University who are on target for graduation may be provisionally accepted to the Physician Assistant Studies Program at USF one year prior to their matriculation at USF provided they meet the following criteria.

1. The provisional acceptance at USF will be contingent upon the student's completion of the required courses and completion of an undergraduate degree, which meet the admissions standards stipulated by the USF PA admission committee. All course grades must be C or above with a minimum accumulated GPA of 3.5 and science GPA of 3.0. Courses that must be completed at Manchester are detailed in Appendix A of this document and include:
 - a. Biology 106, 106L, 108 and 108L
 - b. Introduction to Molecular Biology with Lab 229, 229L
 - c. Microbiology/Lab 313L
 - d. Fundamentals of Human Anatomy with Lab 202, 202L
 - e. Advanced Human Physiology with Lab 422, 422L
 - f. General Chemistry 111, 111L, 113, 113L
 - g. Organic Chemistry 311, 311L, 312, 312L
 - h. Analytical Chemistry with Lab 235, 235L
 - i. Biochemistry I with Lab 405, 405L or Biochemistry II 406
 - j. Physics 111, 112 or 210, 220 all with lab
 - k. Psychology 110
 - l. Developmental Psychology 224 or Behavior Disorders 225

2. Additionally, students are encouraged to take the following courses if their schedules allow. These courses are not required but recommended. They include:
 - a. Genetics 260
 - b. Cell Biology 365
 - c. Immunology 431

3. Progression Standards
Students must:
 - a. Have a written reference from the Academic Advisor for pre-PA students supporting that they are on track for agreement admissions criteria including that they are in good standing with Manchester with no academic or professional issues.
 - b. Accumulate at least 1000 hours of paid patient care work experience approved by the faculty advisor prior to graduation at Manchester.
 - c. Have experience with the PA role, such as interviewing, shadowing or working with PAs.

4. Students must formally apply to USF PA Program via the CASPA application process. The GRE requirement is waived for the Manchester students entering under this agreement.
5. Students may submit records to USF via the Manchester academic advisor and CASPA beginning June 1 for USF PA matriculation the following May.
6. Students must reserve their seat with the submission of a non-refundable deposit required of all incoming PA students by March 1 of matriculation year. The deposit money will be credited towards the first semester's tuition.
7. Students must complete all USF enrollment materials required of matriculating PA students prior to the beginning of classes in May.
8. The Graduate School at USF will make offers of provisional acceptance and its decision will be final. Matriculation is dependent upon completion of all admissions requirements including pre-requisite courses, maintenance of GPA of 3.5 or above, awarding of a baccalaureate degree or higher, and a reference from the Manchester faculty describing the student's ability to be successful in a graduate-level program.
9. Students achieving early acceptance must complete their undergraduate program and receive a Bachelor's degree or higher from Manchester.
10. Once accepted to the program, students are required to meet on an annual basis with a University of Saint Francis Physician Assistant faculty mentor.
11. Two (2) students will be accepted through this agreement from Manchester per cohort.
12. For each admissions cycle, the window for early acceptance under this program begins on June 1 of the year prior to the PA program matriculation. Thereafter, additional qualified applicants from Manchester will be considered on a wait list.
13. Because the Manchester Spring Semester ends after the start of the USF PA First Summer Semester, students must complete any prerequisites prior to the beginning of their final Spring Semester. Students must be prepared to begin their coursework at USF when the USF summer session begins, which may require completion of MU coursework and assignments.

Cooperation Term

The term of this Agreement is three years. It will take effect from the date of signature by the representatives from both Parties. It may be altered, modified or extended only by mutual consent and written amendment signed by both Parties up to three months before the expiration. Either Party may terminate the agreement in advance of its normal expiration date by giving the other Party a

sixty-day prior written notice. The Parties agree to work together amicably to resolve any disputes or disagreements that may arise during the Parties' performance of this agreement.

The Parties hereto have executed this Agreement this 9th day of December, 2021

Other untouched issues, if there are any, should be addressed by both parties through consultation.

University of Saint Francis

Manchester University

Lance Richey
Name 

Celia Cook-Huffman
Name 

Vice President for Academic Affairs
Title

VPAA
Title

1/4/22
Date

12/12/21
Date

APPENDIX A.
Courses Required for pre-PA Curriculum

All course grades must be C or above with a minimum accumulated GPA of 3.5 and at least 1000 hours of paid clinical experience.

Courses that must be completed at Manchester are:

a. BIOL 106 - Principles of Biology I - 3 hours

An examination of the nature of science and scientific thinking through an introduction to living organisms and their relationship to the environment. Biostatistics, biodiversity, and ecological processes will be covered.

BIOL 106L - Principles of Biology I Lab - 1 hour

An examination of the nature of science and scientific thinking through an introduction to living organisms and their relationship to the environment. Biostatistics, biodiversity, and ecological processes will be covered.

and

BIOL 108- Principles of Biology II - 3 hours

Integrating principles of biology, stressing the common responses of life to the problems of existence. Major topics include cellular organization of organisms, genetics, evolution, and organismic processes that maintain life. Examples drawn primarily from vertebrates and vascular plants. The associated laboratory (BIOL 108L) involves animal dissection.

BIOL 108L-Principles of Biology II Lab -1 hour

Laboratory experience in microscopy, Mendelian genetics, population genetics, and anatomy and physiology of selected animals and plants. Data interpretation and scientific writing (laboratory reports and laboratory notebooks) will be emphasized. Corequisite: BIOL 108. Spring.

b. BIOL 229 Introduction to Molecular Biology - 3 hours

Introduction to the major classes of biological molecules. Structures and functions of carbohydrates, lipids, proteins, and nucleic acids will be covered in addition to examples of cell structures, enzymes and metabolic pathways. Corequisite: BIOL 229L. Prerequisites: One year of biology and one year of chemistry. Fall and Spring.

BIOL 229L Introduction to Molecular Biology Lab - 1 hour

Focus is on the isolation and measurement of carbohydrates, lipids, proteins and nucleic acids. Experience in thin layer chromatography, spectrophotometry, electrophoresis and light microscopy. Corequisites: BIOL 229. Fall and Spring.

c. BIOL 313 Microbiology - 3 hours

From the discovery of microbes to the current research driving the field forward, students will examine the role microbes play in shaping this planet. Identification of major microbial groups, understanding basic principles of microbiology and the relationship between microbes and the environment and their hosts will be explored. Prerequisite: BIOL-229 or BIOL-260.

BIOL 313L Microbiology Lab-1 hour

Laboratory experiences in identification, classification, and isolation of bacteria and mold from known cultures and environmental unknowns. Students will evaluate the effectiveness of environmental conditions and chemical compounds on controlling microbial growth. Mastery will be achieved in aseptic techniques and microscopic examination. Prerequisites: BIOL 229/229L or Genetics 260, and completion of or concurrent enrollment in BIOL 313.

d. BIOL 202 Fundamentals of Human Anatomy – 3 hours

A regional approach to the study of human structure. Emphasis is on the basic structural organization of the human body, underlying anatomical principles and the anatomical details appropriate for allied health students. Cannot be taken for credit within the biology major. Spring.

BIOL 202L Fundamentals of Human Anatomy – 1 hour

Laboratory course to complement BIOL 202. Laboratory work in identifying anatomical structures in humans. Emphasis on musculoskeletal, circulatory and nervous systems. Prerequisite: Completion of or concurrent enrollment in BIOL 202. Spring.

e. BIOL 422 Advanced Human Physiology - 3 hours

A survey of human organ systems, their specific processes, and the nervous and hormonal processes integrating the activity of the various systems. Topics include cellular metabolism, blood, nerve and muscle function, circulation, respiration, digestion, water and electrolyte balance, and the nervous and endocrine systems. Corequisite: BIOL 422L. Prerequisites: BIOL 106, 106L, 108, 108L; one year of chemistry. (Exercise Science majors may substitute BIOL 204, 204L and ESS 325 for BIOL 106 and BIOL 106L).

BIOL 422 Advanced Human Physiology Laboratory- 1 hour

Laboratory experience in the collection, and analysis of physiological variables of vertebrates. Investigations focus on the responses of most major physiological systems (including integumentary, muscular, circulatory, digestive, renal, respiratory, nervous and sensory systems). Investigations will

utilize various vertebrates including humans. Corequisite: BIOL 422. Prerequisites: BIOL 106, 106L, 108, 108L.

f. CHEM 111 General Chemistry 1-3 hours

Basis for all higher-level chemistry courses. Topics covered include atomic and molecular structure; stoichiometry; energy relationships; bonding; and solid, liquid and gaseous states. Prerequisite: Completion of MATH 105, or placement into a higher-level MATH course.

CHEM 111L General Chemistry I Lab-1 hour

Laboratory experience in stoichiometry and introductory quantitative analysis supplement the classroom material. Lab fee. Prerequisite: Successful completion of or concurrent enrollment in CHEM 111.

and

CHEM 113 General Chemistry II - 3 hours

Thermodynamics as it relates to chemical equilibrium, acid-base systems and slightly soluble salts. The theory and application of kinetics to chemical systems is covered. Appropriate descriptive chemistry is included at all phases of the course. Prerequisite: CHEM 111.

CHEM 113 General Chemistry II Lab - 3 hours

Includes work in kinetics, colligative properties and ionic equilibria. Prerequisites: CHEM 111 L, successful completion of or concurrent enrollment in CHEM 113.

g. CHEM 311 Organic Chemistry I - 3 hours

Fundamental concepts of organic chemistry including bonding, nomenclature, isomerism, stereochemistry, and the relation of structure to chemical and physical properties are covered. Descriptive chemistry and reaction mechanisms related to hydrocarbons, alkyl halides and alcohols are included. Prerequisite: A grade of C- or higher in CHEM 113.

CHEM 311L Organic Chemistry I Lab-1 hour

Experience in techniques of purification, separation and identification. Reactions illustrative of topics covered in lecture are included. Lab fee. Prerequisites: CHEM 113L; successful completion of or concurrent enrollment in CHEM 311.

and

CHEM 312 Organic Chemistry II-3 hours

Concepts covered in CHEM 311 as applied to the chemistry of aromatics, carbonyl compounds, amines, carbohydrates, etc. Continues to use reaction mechanisms and reactive intermediates in understanding the reactions of these compounds. Applications to related fields are made. Prerequisite: CHEM 311

CHEM 312L Organic Chemistry II Lab-1 hour

Experience in functional group transformation, synthetic sequences and laboratory techniques. Lab fee. Prerequisite: CHEM 311 L; successful completion of or concurrent enrollment in CHEM 312.

h. CHEM 235 Analytical Chemistry - 3 hours

An introduction to volumetric, photometric, chromatographic, potentiometric and gravimetric analytical techniques. Prerequisites: CHEM 113.

CHEM 235L Analytical Chemistry - 1 hour

Laboratory work requires the use of spreadsheets for data analysis and computer searching of the Chemical Abstracts database. Students will also investigate acid-base equilibria, redox equilibria, spectroscopic techniques and separations. Lab fee. Prerequisite: CHEM 113L and concurrent enrollment or successful completion of CHEM 235.

i. CHEM 405 Biochemistry I - 3 hours

The chemical aspects of living organisms with an emphasis on structure-function relationships. Topics include biomonomers, protein structure and function, and degradative and synthetic biochemical cycles. Prerequisite: CHEM 312; FYS or ENG 111.

j. CHEM 405L Biochemistry I Laboratory - 1 hour

Experience in the isolation, purification and characterization of proteins. Lab fee. Prerequisites: CHEM 312L, 405 concurrent

or

CHEM 406 Biochemistry II - 3 hours

Advanced topics on the chemical aspects of living organism with an emphasis on biopolymer interactions. Topics include protein-nucleic acid interactions, genetic information processing and molecular physiology. Prerequisite: CHEM 405.

k.

PHYS 111 College Physics I - 4 hours

Primarily for students with no high school physics background. The main topics include classical mechanics and thermal physics. Instruction is by lecture, demonstration, discussion, problem solving and laboratory experiences. Includes three lecture periods and a three-hour laboratory per week. This course is not intended for majors in the physical sciences and does not count toward a physics or engineering science major. Course is first of a two-semester sequence although it may be taken as a stand-alone course. Prerequisite: MATH 105 or higher. Enrollment in MATH 105 may be concurrent.

and

PHYS 112 College Physics II - 4 hours

This course is a continuation of PHYS 111. The main topics include electricity and magnetism, optical physics and modern physics. Instruction is by lecture, demonstration, discussion, problem solving, and laboratory experiences. Includes three lecture periods and a three-hour laboratory per week. This course is not intended for majors in the physical sciences and does not count toward a physics or engineering science major. This course is the second of a two-semester sequence.

Prerequisite: PHYS 111

or

PHYS 210 General Physics I - 4 hours

This course is the first of a two-semester sequence in calculus-based physics. Topics include an introduction to derivatives, integrals and vectors, motion in one and two dimensions, rotational motion, energy, gravitation, sound and thermal physics. This course is intended for physics, chemistry, engineering science, mathematics and other science majors. Includes three class meetings and a three-hour laboratory per week. Prerequisites: MATH 121. Enrollment in MATH 121 may be concurrent.

and

Phys 220 General Physics II - 4 hours

This course is the second of a two-semester sequence in calculus-based physics. Topics include electrostatics, basic LCR circuits, magnetism, optics, electromagnetic waves, and modern physics. This course is intended for physics, chemistry, engineering science, mathematics, and other science majors. Includes three class meetings and a three-hour laboratory per week. Prerequisites: MATH 122; PHYS 210. Enrollment in MATH 122 may be concurrent.

l. PSYC 110 Introduction to Psychology - 4 hours

An introduction to the scientific study of behavior and mental life which includes an overview of the biological, social and cultural influences on behavior. In addition to three hours of lecture meetings per week, all students will participate in a field experience that provides hands-on exposure to course content. C-4HY.

m.

PSYC 224 Developmental Psychology - 4 hours

In this course we study and apply theory and research in developmental psychology across the life-span. Emphasis is placed on the interaction of physical, cognitive, and social aspect of development from conception to old age, death, and dying. Prerequisite: PSYC 110

or

PSYC 225 Behavior Disorders - 4 hours

The scientific study of the causes (etiology), symptoms (diagnosis) and treatment of various forms of psychopathology. Topics include a review of anxiety, mood disorders, psychosis,

personality disorders and childhood disorders. All students will participate in a laboratory experience.

Prerequisite: PSYC 110.

