

**Thomas Jefferson University  
Advising Manual  
Academic Year 2015-2016**

**Jefferson College of Health Professions  
Jefferson College of Nursing  
Jefferson College of Pharmacy  
Jefferson College of Population Health**

biotechnology/molecular sciences  
couple and family therapy  
cytotechnology/cell sciences  
health policy  
healthcare quality and safety  
medical laboratory science/clinical laboratory sciences  
nursing  
occupational therapy  
pharmacy  
physical therapy  
physician assistant studies  
public health  
radiologic sciences

August 6, 2015

Dear Colleague,

We are pleased to provide our annual Jefferson Advising Manual. The information in this guide pertains to the 2015-2016 academic year unless otherwise noted. We hope that this manual will serve as an easy to use educational reference for you as well as an important advising tool as you help your students navigate their educational and professional goals.

As interest in careers in healthcare continues to expand, we encourage you to review our options for second-degree students. In addition to our Doctor of Physical Therapy degree, post-baccalaureate students can enroll in the Entry-level master's in Occupational Therapy, Master's in Couple & Family Therapy, one-year Advanced Placement Programs in the Radiologic Sciences, a 12-month accelerated BSN through the FACT program, and a one-year Accelerated Professional Master's in Biotechnology, Cytotechnology and Medical Laboratory Science.

We can't emphasize enough how much we value your role as a member of the Jefferson family and we appreciate your efforts in nurturing students interested in health-related careers. You are an integral component of our partnership and we appreciate your expertise.

Please feel free to call or email us with any questions you may have. We look forward to working with you in the upcoming year.

Sincerely,

Jefferson Admissions Staff

Erin Finn  
Jacqueline Hane  
Evelyn Janick  
Sarah McNabb  
Don Sharples  
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## Jefferson Fact Sheet

### **Majors and Degrees**

Jefferson is a career-oriented, associate, baccalaureate, master's, and doctoral degree institution that offers professional study mainly to students who have completed approximately two to three years of prerequisite coursework elsewhere. Jefferson offers health professions degrees in the following areas:

#### **JCHP-**

**Bioscience Technologies** Bachelor of Science, Entry-level Master's (combined BS/MS), Accelerated Professional Master's and Advanced Master of Science programs in biotechnology, cytotechnology and medical laboratory science. Post-baccalaureate certificate programs in blood banking, clinical chemistry, hematology, microbiology and molecular biology

**Couple and Family Therapy** Master's in Family Therapy

**Occupational Therapy** Combined BS/MS, Entry-level Masters, Doctor of Occupational Therapy, Certificates for Advanced Practice

**Physician Assistant Studies** Master of Science in Physician Assistant Studies

**Physical Therapy** Doctor of Physical Therapy

**Radiologic Sciences** Bachelor of Science programs in cardiac sonography, computed tomography, general sonography, invasive cardiovascular technology, magnetic resonance imaging, medical dosimetry, nuclear medicine, radiation therapy, radiography, and vascular sonography. Certificate program in PET/CT. Combined BS/MS degrees offered. Executive-style Master's of Science in Radiologic and Imaging Sciences with tracks in education, management, ICVT and PET/CT.

#### **JCN-**

**Nursing** Prelicensure BSN, FACT-1 year, FACT-2 year (previously known as Accelerated Pathway to the MSN for non-nurses), Master of Science in Nursing (including Certified Registered Nurse Anesthetist) and Doctor of Nursing Practice

#### **JCP-**

**Pharmacy** Doctorate of Pharmacy

#### **JCPH-**

**Public Health** Master of Public Health

**Health Policy** Master of Science in Health Policy

**Applied Health Economics and Outcomes Research** Certificate and Master's

**Healthcare Quality and Safety** Master of Science in Healthcare Quality and Safety

**Population Health Sciences – Ph.D.**

## **Tuition Fee Information - Academic Year 2014-15**

Complete tuition information can be found at: <https://w3.jefferson.edu/registrar/tuition/>

### **Financial Aid**

More than three-quarters of our students receive some form of financial assistance. For more information contact The University Office of Financial Aid at (215) 955-2867 or online at <http://www.tju.edu/financialaid/>

### **Housing**

The on-campus residential facilities are conveniently located within walking distance of Philadelphia's shopping, cultural and recreational activities and within two blocks of all campus facilities. On-campus housing is guaranteed to eligible first year students. Recently renovated Jefferson housing offers an affordable opportunity for students to immerse themselves in the Jefferson experience. A variety of shared and single accommodations are available both on and off campus. The Department of Housing & Residence Life can be reached at (215) 955-8913 or online at [www.jefferson.edu/housing/](http://www.jefferson.edu/housing/)

### **Student Life**

The Office of Student Life & Engagement for the students of the Jefferson Colleges is responsible for student programs, academic support services, discipline and counseling. Students can participate in the many clubs and organizations available including cultural, recreational and social activities. Some of the student programs they coordinate are the new student Orientations, the Leadership LIVE program, and student discounts to theatres, museums and sporting events. The major responsibility of their office is to coordinate the delivery of services to students to assure successful student recruitment and retention. The Office of Student Life & Engagement can be reached at (215) 503-7743 or online at <http://www.jefferson.edu/university/student-life-engagement.html>

### **Recreation and Fitness Center**

Recreation facilities include a gymnasium, swimming pool, and physical fitness center. Students are encouraged to make full use of these facilities, which are located in Jefferson Alumni Hall. The Activities Office can be reached at (215) 503-7949 or online at <http://www.jefferson.edu/university/fitness.html>

### **Career Development Center**

The Career Development Center offers counseling, workshops, resume assistance, and networking opportunities for students and alumni. The CDC is also available for counseling and assistance as graduates plan career transitions and growth. The Career Development Center can be reached at (215) 503-5805 or online at <http://www.jefferson.edu/university/academic-affairs/schools/career-development-center.html>

### **Commuter Services**

The Commuter Services Office offers discounted parking and public transportation passes for both inside and outside of Philadelphia. Commuter Services can be reached at (215) 955-6417 or online at [http://www.jefferson.edu/university/customer\\_service/commuter.html](http://www.jefferson.edu/university/customer_service/commuter.html)

### **Office of International Affairs (OIAS)**

Thomas Jefferson University welcomes people from all over the world to work, study, and engage in research and encourages Jeffersonian to study, lecture and do research abroad. OIAS works with all University departments to facilitate exchange and to offer orientation to international visitors. ESL

classes are also available OIAS can be reached at 215-503-4335 or [http://www.jefferson.edu/university/international\\_affairs.html](http://www.jefferson.edu/university/international_affairs.html)

## Admissions Office Contacts

<b>Name</b>	<b>Title</b>	<b>Programs</b>	<b>Phone</b>	<b>Email</b>
Erin Finn	Director of Enrollment Services		(215)-503-1040	<a href="mailto:Erin.finn@jefferson.edu">Erin.finn@jefferson.edu</a>
Jacqueline Hane	Assistant Director of Admissions	Nursing	(215) 503-1042	<a href="mailto:Jacqueline.Hane@jefferson.edu">Jacqueline.Hane@jefferson.edu</a>
Evelyn Janick	Admissions Counselor	Nursing, Pharmacy	(215) 503-1431	<a href="mailto:Evelyn.Janick@jefferson.edu">Evelyn.Janick@jefferson.edu</a>
Jennifer Raab	Assistant Director of Events and Communications	Bioscience Technologies	(215) 503-1046	<a href="mailto:Jennifer.Raab@jefferson.edu">Jennifer.Raab@jefferson.edu</a>
Don Sharples	Senior Associate Director of Admissions	Physical Therapy, Occupational Therapy, and CFT	(215) 503-1044	<a href="mailto:Donald.Sharples@jefferson.edu">Donald.Sharples@jefferson.edu</a>
David Wood	Assistant Director of Admissions	Physician Assistant, Radiologic Sciences	(215) 503-9847	<a href="mailto:David.Wood@jefferson.edu">David.Wood@jefferson.edu</a>

Office of Admissions and Enrollment Management  
 Thomas Jefferson University  
 130 South 9th Street, Suite 100  
 Edison Building  
 Philadelphia, PA 19107  
 (215) 503-8890  
 (215) 503-7241 (fax)  
 877-JEFF-CHP  
 (877)-533-3247  
[www.jefferson.edu](http://www.jefferson.edu)

Apply for admission online at <http://www.jefferson.edu/university/admissions.html>

## College and High School Partnerships & Affiliations

Jefferson is affiliated with a number of colleges, universities, and community colleges in an effort to increase access to higher education in the nursing and health professions fields. These partnerships, including general agreements (2+2 and other degree completion programs), articulated curriculum agreements, and dual admission nursing programs provide students with a wide array of college choice as they complete their prerequisite coursework.

### General Agreements

Jefferson's general partnership agreements present a novel approach to degree completion and a baccalaureate (or higher) degree.

### *2+2, 3+1, 3+2 Pathways*

Students enrolled in this program spend the first two or three years at an affiliated institution before transferring to Jefferson to complete a nursing, occupational therapy, radiologic sciences, biotechnology, cytotechnology, or medical laboratory science bachelor's and/or master's degree.

Students who have already earned a bachelor's degree may also enroll in one of our one-year Post-baccalaureate Pathways in radiologic sciences, biotechnology, cytotechnology, medical laboratory science, or nursing. Due to the complexity of the Pharmacy admissions process, the admission guarantee does not apply to this program. However, we will work closely with our partner schools to facilitate the transfer of students into the pharmacy program. Please contact us to discuss opportunities for pharmacy information sessions to be held on your campus.

The General Agreement entitles students enrolled at our partner institutions admission to degree programs under the following conditions:

- All prerequisite coursework must be completed prior to enrollment at Jefferson
- A designated partner school representative must recommend the student for admission
- Students must have earned at least a 2.7 cumulative GPA to be considered for admissions
- Students must have earned at least a 'C' in all prerequisite coursework
- Students may not have a criminal or disciplinary record
- Admission is extended as long as there are spaces available in the entering class
- Where TOEFL is mandated, a minimum score of 87 (Internet-based) is required
- Accepted students must submit the results of a criminal background check and child abuse clearance prior to matriculation

### Articulated Curriculum Agreements (3+3 DPT and 3+ 2 OT)

Jefferson's articulated curriculum agreements offer an innovative way for students to gain acceptance into upper division graduate programs while still in high school or during the freshman year in college.

Articulated curriculum agreements are available for the Doctor of Physical Therapy program, the Entry-level Master's in Occupational Therapy program, and the combined bachelor's/master's degrees in Biotechnology, Cytotechnology, and Medical Laboratory Science. More information on these programs can be found at [http://www.jefferson.edu/university/admissions-schools/admissions/partner\\_schools/overview.html](http://www.jefferson.edu/university/admissions-schools/admissions/partner_schools/overview.html)

***Participating General Agreement (GA), Articulated Curriculum Agreement (ACA) Colleges, Universities, and Community Colleges***

Arcadia University (GA)	Lebanon Valley College (GA)
Atlantic Cape Community College (GA)	Manor College (GA)
Bloomsburg University (GA)	Mercer Community College (GA)
Bucks County Community College (GA)	Messiah College (ACA)
Burlington County Community College (GA)	Middlesex County College (GA)
Cabrini College (GA)	Montgomery County Comm. College (GA)
Camden County College (GA)	Moravian College (GA)
Chestnut Hill College (ACA)	Muhlenberg College (ACA)
Community College of Philadelphia (GA)	Penn State Abington (GA, ACA)
Cumberland County College (GA)	Penn State Brandywine (GA)
Delaware County Comm. College (GA)	Philadelphia University (ACA)
Elizabethtown College (GA, ACA)	Rider University (GA)
Rowan College at Gloucester County (GA)	Saint Joseph's University (GA, ACA)
Gordon College (GA)	Shippensburg University (GA)
Gwynedd-Mercy College (GA)	Susquehanna University (GA)
Harcum College (GA)	University of Delaware (ACA)
Immaculata University (GA, ACA)	University of the Sciences (GA)
Juniata College (GA, ACA)	Valley Forge Military Academy (GA)
Keystone College (GA)	Villanova University (GA, ACA)
La Salle University (GA)	

***Participating High School***

Roxborough High School – Biotechnology Career Academy

## Frequently Asked Questions

### What are the admissions requirements?

- Undergraduate admission requirements vary by program but the most successful students have a minimum cumulative and science grade point average of 3.0.
- The PACE program is open to high school seniors only. While grade point average and SAT requirements vary by major, all candidates should have a minimum of a 3.0 cumulative GPA, a score of a 1,100 on the SAT (Reading and Math sections only), strong background in science and math coursework, and it's recommended but not required to have shadow or volunteer experience in a healthcare setting
- Graduate admission requirements vary by program but most successful candidates have a minimum cumulative grade point average of 3.0 and competitive scores on the GRE or MAT tests, if applicable.
- Pharmacy applicants must have at least a 2.7 cumulative GPA and PCAT composite scores in the 50th percentile or higher.

### How should I submit my application?

You apply online at <http://www.jefferson.edu/university/admissions-schools/admissions/apply/overview.html> . Almost all of our applications use a Centralized Application Service, or CAS. Please be sure to read the directions on our website carefully, and follow all the necessary instructions on the CAS application as well.

Pharmacy applicants must apply for admission through PharmCAS at [www.pharmcas.org](http://www.pharmcas.org) .

Physical Therapy applicants must apply through PTCAS at [www.ptcas.org](http://www.ptcas.org) . Applications for the Combined BS/MS and EMOT programs must apply through OTCAS at [www.otcas.org](http://www.otcas.org) . Applications for FACT 1-Year **only** must go through NursingCAS at [www.nursingcas.org](http://www.nursingcas.org) . Physician Assistant applicants must apply through CASPA at <https://portal.caspaonline.org/> . All materials for these programs are submitted directly to PharmCAS, PTCAS, OTCAS, CASPA, and NursingCAS. Please note some programs also require a Jefferson supplemental application.

Students interested in applying to Bioscience Technologies, Couple & Family Therapy, BSN, FACT 2-Year Nursing or Radiologic Sciences apply through TJApp <https://tju.unicas.com/>.

### Where should I complete my prerequisites before enrolling at Jefferson?

You may complete courses at any accredited two-or four-year college or university. While not required, you are encouraged to attend a college or university that has signed a transfer agreement with Thomas Jefferson University. Our agreement institutions have designated an on-campus advisor who is knowledgeable about the prerequisite course requirements and familiar with our academic programs and facilities.

### Do I have to complete all of my prerequisite courses before I apply?

While you are required to have all prerequisite work completed prior to enrollment, you do not need to have all prerequisite work completed at the time of application; however, the majority of your science and math coursework should be finalized. Should you have some coursework in progress at the time of application, or if you plan to complete this work during the summer prior to enrollment, you should simply indicate the missing coursework in the appropriate section of your application. The majority of the science and math prerequisite work should be completed at the time of application.

### **Is there an application deadline?**

Admission to Jefferson is on a rolling basis and is divided into the Admissions Review Periods outlined below. To be reviewed for a particular period, *all* application materials must be postmarked by the indicated date and should be submitted together in a single envelope. Preference is given to complete applications that meet the postmark dates; however, we will accept applications as long as space is available. All students who meet the postmark date for the review period will have the same chance of earning acceptance to their respective program regardless of whether the application was received at the beginning or the end of the review period.

You need not complete all prerequisites before you apply, but the majority of your science prerequisite coursework should be completed before an admissions decision can be made. All prerequisites must be completed before you enter the program. You may also earn credits through standardized tests, including CLEP. Admission is competitive, as there are a limited number of seats in each class.

### **Complete Admissions Application Deadlines can be found at:**

<http://www.jefferson.edu/university/admissions-schools/admissions/apply/deadlines.html>

- **Jefferson College of Population Health**
- **Jefferson College of Health Professions**
- **Jefferson College of Nursing**
- **Jefferson College of Pharmacy**

### **Is there a waiting list?**

Once a program is full, a waiting list is created in the event that someone chooses not to accept his/her seat. The waiting list is dissolved once classes begin in September.

### **What courses can be transferred to Jefferson?**

Those with a grade of 'C' or higher that meet the program requirements (a 'C-' is not acceptable). Developmental, physical education, and courses such as pottery, typing or photography are not transferable. Science and math courses older than 10 years (5 years for pharmacy applicants) are transferable if validated by a challenge or CLEP exam or if the applicant is working in a field where science and math concepts are used on a daily basis.

Transfer credit is based on the number of credits the course is assigned at TJU. For example, calculus is a 3-credit course at TJU; therefore a student with a 4-credit calculus course at another institution would receive only 3 credits for that course at TJU.

### **Is housing available?**

**Students who are accepted to TJU by May 31st and who have a housing application on file by May 31st are guaranteed on-campus housing.** Thomas Jefferson University has three university resident facilities: Martin Residence Hall, Barringer and Orlowitz Apartment Complexes.

### **Is volunteer experience required?**

While not required of all programs, volunteer experience is strongly recommended as part of a competitive application package. For department recommendations, contact the admissions office.

### **How many students enroll through the PACE and 3 + programs?**

Each year, approximately 10% of the student body is comprised of PACE students. Once accepted, you are guaranteed admission for your junior year at Jefferson as long as you successfully complete all prerequisite courses for your major, as well as maintain the required cumulative grade point average.

**How many years do I spend at my first institution?**

While students are typically able to complete the prerequisites within two years, some choose to remain at their first institution for a third year.

**When do I apply for housing and financial aid?**

For PACE, 3+3 and 3+2 students, housing and financial aid applications will be sent to you the year prior to matriculation into Jefferson. For transfer and graduate students, an aid application is sent to you soon after you apply. Financial aid you received at your first institution is applicable only to that institution. A separate package will be awarded by Thomas Jefferson University.

**Do you offer varsity sports?**

While there is no intercollegiate athletic program, Jefferson does offer a full complement of intramural sports. For athletic enthusiasts, facilities include an indoor swimming pool, fully equipped gymnasium and weight room, racquetball court, a physical fitness center, sauna and an aerobics room.

**Do you recommend that I have a car on campus?**

You may have a car on campus. However, because parking is costly and since mass transportation is easily accessible, we recommend that you leave your car at home.

**If not admitted through PACE or a 3+ program, may I reapply in the future?**

Yes. If you are not admitted through the PACE program you may reapply as a transfer student.

**What contact will I have with Jefferson while attending my first school?**

You will receive a series of mailings and phone contacts from the Jefferson community while attending your first institution. In addition, we will invite you to Jefferson to meet your future classmates and familiarize yourself with the campus at our annual Welcome Picnic and Advising Day events.

**Will I need a Criminal Background Check and Child Abuse Clearance?**

Yes. All accepted students must complete both a Criminal Background Check and Child Abuse Clearance prior to matriculation. Specific instructions will be provided to each accepted student. Individuals who have been convicted of a felony or misdemeanor may be denied certification or licensure as a health professional. Information regarding individual eligibility may be obtained from the appropriate credentialing bodies. Clinical rotation and fieldwork sites may require a criminal background check and/or child abuse check in order to permit participation in the clinical experience, rotation or fieldwork. Participation in clinical experiences, rotations or fieldwork is a required part of the curriculum and a requirement for graduation. Clinical rotation and fieldwork sites may deny a student's participation in the clinical experience, rotation or fieldwork because of a felony or misdemeanor conviction, failure of a required drug test, or inability to produce an appropriate health clearance, which would result in delayed graduation or in the inability to graduate from the program.

Nursing students are also required to complete an additional FBI fingerprinting background check and Drug Testing. Background checks and child abuse clearances are not required Masters in Radiologic Sciences, Doctor of Occupational Therapy, and General Studies students. Pharmacy students may have additional background check requirements.

# **Radiologic Sciences**

## **Information & Definitions**

### **What is Radiologic Sciences?**

Radiologic Sciences is a field of medical study that uses pictures or images of internal organs and structures to prevent and diagnose disease as well as using therapeutic interventions to treat disease. These images are captured in a number of ways, usually viewed on a computer screen, and then interpreted by a physician.

### **What are the different modalities?**

Radiography uses x-ray beams to create films of body features when examining patients for broken bones, ulcers, tumors, and/or the disease of various organs. A technologist uses x-ray equipment to produce radiographs or films of the appropriate density, detail and contrast.

A specialization of radiography, known as Computed Tomography (CT), also uses x-ray beams. In this case, the beams create cross-sectional images of the body, which are then assembled into three-dimensional images by a computer and produced on a computer screen to be evaluated.

While both of these modalities use radiation for image production, another specialization, called Magnetic Resonance Imaging (MRI), creates cross-sectional images by using radio waves and magnetic fields. Hydrogen atoms in the body react to the magnetic fields to help create these three-dimensional images and produce them on the computer screen for an MRI technologist and physician to evaluate.

General Sonography or Ultrasound uses high-frequency sound waves to create images of internal structures of the body. The image is created by the echoes from the sound waves collected on equipment run by a sonographer. The sonographer performs a diagnostic scan and makes a permanent record of the data obtained for interpretation by a physician. By viewing the screen as the scan takes place, sonographers look for subtle differences between healthy and pathological areas to decide which images are passed on to the physician and which images are satisfactory for diagnostic purposes.

The four modalities above assess the structure of an organ. A fifth modality, Nuclear Medicine Technology, was developed to take these processes one step further and assess the function, as well as the structure, of the organ. With traces of radioactive materials, known as radiopharmaceuticals, injected into the body, an image is detected by a gamma camera and produced on a computer screen. This image not only illustrates the anatomy and image of the organ, but also demonstrates how well the organ is functioning within the body.

Cardiac Sonography, or ultrasound of the heart, allows a technologist to measure the size of the heart chambers and study the valves to determine the efficiency of blood flow through each chamber and to the rest of the body. Cardiac sonography uses high-frequency sound waves to produce a real-time view of all the chambers of the heart, the heart valves, the heart muscle, and the great blood vessels entering and leaving the heart. A cardiac sonographer is a highly skilled professional instrumental in the evaluation of congenital and acquired cardiac abnormalities and associated complications.

Vascular Sonography uses ultrasound to examine blood flow through the vascular system, or arteries and veins. The images produced are used to detect abnormalities and vascular disease.

Invasive Cardiovascular Technology is a procedure that helps technologists assess the pumping action of the heart and valves and blood flow. By threading a catheter, or thin tube, from a vein or artery in the leg to the heart, a dye is injected into the chambers and vessels, and an image is produced for the physician to interpret.

Radiation Therapy involves treating diseases with penetrating beams of high-energy radiation. Radiation Therapists are highly skilled members of the cancer management team. They are responsible for recording, interpreting and administering the treatment prescribed by radiation oncologists.

Medical Dosimetry is a sub-specialty of radiation oncology that deals with treatment planning, dose measurement, dose calculations and quality assurance of radiotherapy treatment designed to treat cancer. Medical Dosimetrists plan and calculate ionizing radiation under the direction of a medical physicist.

Positron Emission Tomography and Computed Tomography (PET/CT) are standard imaging tools that allow clinicians to pinpoint the location of cancer within the body before making treatment recommendations. The highly sensitive PET scan picks up the metabolic signal of actively growing cancer cells in the body, and the CT scan provides a detailed picture of the internal anatomy that reveals the size and shape of abnormal cancerous growths. Alone, each test has its limitations but when the results of the scans are fused together they provide the most complete information on cancer and metabolism. In the past, difficulties have arisen from trying to interpret the results of both tests together because patients often change their positions between tests. The combined PET/CT scan allows clinicians to perform the tests simultaneously; which leaves less room for error in interpreting test results.

### **Where do radiologic sciences professionals work?**

Radiologic science professionals work in the following settings: hospitals, medical centers, academic health centers, colleges and universities, medical equipment companies, physicians' offices, pharmaceutical companies and information systems/information technology offices.

### **What is the job outlook?**

According to the United States Department of Labor, Radiologic Technologists are expected to experience better employment opportunities than the average and those with knowledge of more than one diagnostic imaging procedure will have the best employment opportunities. A 17% increase in employment opportunities is projected to occur between 2008-2018.

### **What do Radiologic technologists earn?**

The average salary for 2012 Jefferson radiologic sciences graduates was \$64,060 (salary range was \$30,000 - \$106,000). 81% of the graduating class of 2012 reported that they had obtained a position within one year of graduation.

### **Who can I contact for more information about Radiologic Sciences?**

American Society of Radiologic Technologists  
15000 Central Avenue SE  
Albuquerque, NM 87123  
(505) 298-4500

American Society of Echocardiography  
4101 Lake Boone Trail, Suite 201  
Raleigh, NC 27607  
(919) 787-5181

Society of Diagnostic Medical Sonographers  
12770 Coit Road, Suite 508  
Dallas, TX 75251-1319  
(972) 239-7367

American Society for Therapeutic Radiation  
Oncologists  
12500 Fair Lakes Circle, Suite 375  
Fairfax, VA 22033  
(703) 502-1550

Society of Nuclear Medicine—Technologist  
Section  
1850 Samuel Morse Drive  
Reston, VA 22090-5316  
(703) 708-9000

American Association of Medical Dosimetrists  
One Physics Ellipse  
College Park, MD 20740  
(301) 209-3320

Society of Vascular Technology  
4601 Presidents Drive, Suite 260  
Lanham, MD 20706-4365  
(301) 459-7550

## Radiologic Sciences Programs

### Multicompetency Programs (2-Year):

- 24-month, full-time program beginning in September
- Graduates are eligible to sit for the national certification examinations in their chosen modality upon completion of the program.

### 2-Year Program Options

The Radiologic Sciences program has eight first year options\*. There are a number of modality choices for the second year, however, students must consult with a TJU admissions counselor or a Radiologic Sciences faculty member to ensure the selected combination meets all prerequisite requirements.

Cardiac Sonography\*  
Computed Tomography (2<sup>nd</sup> yr option only)\*  
General Sonography\*  
Invasive Cardiovascular Technology  
Magnetic Resonance Imaging\*  
Medical Dosimetry(2<sup>nd</sup> yr option only)\*  
Nuclear Medicine\*  
Radiography\*  
Radiation Therapy\*  
Vascular Sonography\*

### Advanced Placement Programs (1-year):

- Enrollment for the Advanced Placement programs takes place in September and the programs are offered on a full-time basis for 12 months
- Students with a bachelor's degree may apply to the following AP programs:
  - Cardiac Sonography
  - General Sonography
  - Magnetic Resonance Imaging
  - Medical Dosimetry
  - Nuclear Medicine
  - Radiography
  - Radiation Therapy
  - Vascular Sonography
- Students who have certification in or graduation from an accredited program in radiography or other related health field may apply to the following AP programs:
  - Cardiac Sonography
  - Computed Tomography Program requires RT(R), RT(T), or CNMT registry eligibility\*\*
  - General Sonography
  - Invasive Cardiovascular Technology Program requires RT(R) or ARRT registry eligibility
  - Magnetic Resonance Imaging Program
  - Medical Dosimetry - requires RT(T) or ARRT registry eligibility\*
  - Nuclear Medicine
  - Radiation Therapy\*
  - Radiography
  - Vascular Sonography
  - PET/CT requires CNMT or ARRT(N) part-time only

- Students enrolled in any of these advanced placement programs must also take a national examination in order to become certified in their specialization.

\*\*Available as a part-time option, see admission requirements.

### **Combined BS/MS (2 or 3 years)**

- Students apply for both the bachelors and master's degree programs with a single application.
- Available in both multicompetency and advanced placement programs.

### **PET/CT Certificate (1 year)**

This is the only formal PET/CT curriculum in the nation. Students must be certified in Nuclear Medicine Technology to apply. In-class attendance only 2 nights per week in fall and spring with clinical competencies in CT and PET.

### **Master of Science in Radiologic and Imaging Sciences (Full-time 1 year or Part-time 2 years)**

- Executive style program designed to allow students to maintain full-time employment while completing the coursework. In-class attendance is required only one weekend a month, plus online interaction and independent study. Classes are held the first weekend each month.
- Students may choose from four tracks: education or management, both of which focus on radiologic and imaging sciences, PET/CT for students who have a bachelor's degree and CNMT or ARRT(N) certification. The PET/CT master's curriculum includes PET/CT courses 2 nights per week in the fall and spring and the general core classes of the MSRIS one weekend per month or ICVT for students who possess current RT(R) or RDCS/RVT or ARRT(R)/ARDMS certification or eligibility. In addition, students must do a clinical rotation in the fall, spring and summer semesters, which is worked out on an individual basis.
- Earning a master's degree will help professionals in the educational arena meet the JRCERT'S requirement that all radiologic and imaging sciences program directors hold at least a master's degree by 2009.
- For administrators, the curriculum is designed to provide training in personnel and fiscal management, personnel recruitment and retention and clinical professional accreditation, among other topics.

### ***Admission Requirements***

Advanced Placement, Multicompetency and Combined BS/MS students must complete 50 specific prerequisite credits prior to matriculation; however, they do not need to have all prerequisite work completed at the time of application. Academic courses from accredited institutions with a grade of 'C' or above and CLEP scores are acceptable for transfer.

PET/CT Certificate students are not subject to the 50 specific prerequisite credits needed for the Advanced Placement and Multicompetency programs. However, they must be CNMT or ARRT (N) registered nuclear medicine technologists prior to matriculation. Part-time radiation therapy + medical dosimetry students must be previously credentialed in their respective modalities. Part-time CT students must have RT(R), RT(T), or CNMT registry eligibility.

Master of Science in Radiologic and Imaging Sciences students must have a baccalaureate degree and certification by the ARRT or the equivalent. Students interested in the MSRSIS with a concentration in PET/CT must have a baccalaureate degree and CNMT or ARRT(N) certification.

## Prerequisite Requirements

All students must complete 50 specific prerequisite credits prior to matriculation; however, they do not need to have all prerequisite work completed at the time of application. Academic courses from accredited institutions with a grade of ‘C’ or above and CLEP scores are acceptable for transfer.

### RADIOLOGIC SCIENCES PREREQUISITES

#### Prerequisite Course Requirements

Course	Credits
	Nuclear Medicine/ All Other Modalities
Anatomy and Physiology w/ lab <sup>1</sup>	8/8
College Physics <sup>2</sup>	8/8
College Chemistry w/ lab <sup>1</sup>	4/8
College Algebra, Pre-Calculus, Calculus, Trigonometry or Geometry	6/6
Statistics	3/3
English Composition	3/3
English Elective	3/3
Electives <sup>3</sup>	12/8
Medical Terminology <sup>4</sup>	3/3
<b>TOTAL CREDITS</b>	<b>50/50</b>

<sup>1</sup>**MUST MEET REQUIREMENTS FOR *SCIENCE MAJORS***

<sup>2</sup>Algebra or calculus-based (Radiologic Physics is not acceptable)

<sup>3</sup>Recommended electives: computer science, psychology, sociology, speech/communication, microbiology, arts, humanities, social sciences, sciences (i.e. microbiology, genetics, organic chemistry), and foreign languages.

Not accepted electives: remedial courses, physical education courses, technical courses (like photography, dance, etc.).

<sup>4</sup>Students certified in or graduated from an accredited program in the health professions do not need Medical Terminology. These students must have three additional elective credits in place of medical terminology.

**These courses must meet requirements for *science majors*.**

\*\*Recommended Electives: Sciences, Social Sciences, Humanities, Arts, History, etc. (ie: Chemistry, Computer Science, Psychology, Sociology, Speech/Communication, Art Appreciation, etc)

**NOTE: All applicants will be required to take a math proficiency exam and an onsite essay at the interview. The math exam is based on Algebra I, Algebra II, and Trigonometry. No calculators will be permitted.**

**Course Clarification: All science and math courses must be completed within 10 years of application to Jefferson (students with relevant work experience may petition for exception to this rule).**

*Courses must be completed with a grade of “C” or above to be eligible for transfer. A grade of “C-“ or below will not be eligible for transfer.*

## Bioscience Technologies Information

### What is a Bioscience Technologist?

Bioscience Technologists are healthcare professionals who perform laboratory tests to detect, diagnose, and ultimately prevent and treat disease.

### What are the different Bioscience Technology specialties?

Biotechnology/Molecular Science uses information obtained at the molecular level to create new therapeutic, diagnostic and environmental products and services. Biotechnologists work with RNA, DNA and proteins. The field has numerous applications, including the pharmaceutical industry, academic research, clinical diagnostics, forensics, agriculture and the environment. Terms like genetic engineering, the human genome project, and molecular biology are fast becoming part of everyday language. Biotechnology medicines are used to treat diseases such as anemia, cystic fibrosis, dwarfism, leukemia, hemophilia, cancers, as well as others.

Cytotechnology/Cell Science Cytotechnologists evaluate cell specimens, locate and interpret the presence or absence of malignant cells (cancer), precancerous changes, infections, inflammatory patterns and treatment-related conditions. Cytotechnologists aid in the detection of cancer by differentiating normal, atypical and malignant cells using microscopes and automated cell analysis.

Medical Laboratory Science/Clinical Laboratory Science- A Medical Laboratory Scientist (or Clinical Laboratory Scientist) is a skilled laboratory scientist who performs chemical, hematological, immunological, microscopic and microbiological tests for the diagnosis and monitoring of diseases. Medical Laboratory Scientists (MLS) utilize the test results to help diagnose, monitor, and research disease states and health status. The MLS also has the responsibility to ensure high standards by interpreting quality assurance parameters, by troubleshooting instrumentation and procedures, and by researching new techniques.

### Where do they work?

Bioscience Technologists work in a variety of settings including hospitals, medical centers, academic health Centers, medical equipment companies, lab equipment companies, clinical laboratories, federal government agencies, research laboratories, physician offices, business and industry, pharmaceutical companies, environmental organizations, insurance companies, veterinary clinical facilities, and forensic laboratories.

#### *Partial lists of job titles include:*

##### *Clinical Staff Positions*

Medical Technologist Generalist  
Clinical Chemistry Technologist  
Immunochemist (Blood Banker)  
Immunology Technologist  
Microbiology Technologist  
Research Assistant/Associate  
Forensic Medicine Laboratory Technologist  
Veterinary Laboratory Staff Technologist  
Hematology Technologist  
Cytotechnologist

##### *Non-Clinical Positions*

Government Inspector  
Quality Assurance Specialist  
Sales or Technical Rep.  
Customer Service Rep.  
Laboratory Consultant  
Information Systems Specialist  
Medical Editor

##### *Leadership and Management Positions*

Laboratory Supervisor and Manager  
Department Manager

College Faculty/Administrator  
Hospital Administrator

Marketing and Sales Manager  
Technical Administrator

Training Manager

### **What is the job outlook?**

Significant expansion of basic and applied biotechnology in both medical center and commercial industry settings has created an urgent need for skilled, bachelor's degree-prepared biotechnologists. Nationally, positions for cytogenetic technologists far exceed the number of trained individuals to fill them. Although there has been a tightening of job opportunities on the East Coast, the employment outlook for laboratory experts nationwide is expected to grow by 40 percent over the next 10 years.

### **What do bioscience technologists earn?**

Average starting salaries for all clinical laboratory careers continues to be very competitive. The average annual salary for Jefferson bioscience technology class of 2012 graduates was \$47,691 (salary range \$23,400 - \$70,000). 76% of the graduating class of 2012 reported that they had obtained a position within one year of graduation.

### **Who can I contact for more information about Bioscience Technologies?**

#### Biotechnology

Biotechnology Industry Organization (BIO)  
1625 K Street, NW, Suite 1100  
Washington, D.C. 20006  
[www.bio.org](http://www.bio.org)

PA Association of Biotechnology  
1524 West College Avenue  
Suite 206  
State College, PA 16801

#### Cytotechnology

American Society of Cytopathology  
400 West 9th Street, Suite 201  
Wilmington, Delaware 19801

American Society for Cytotechnology  
4101 Lake Boone Trail, Suite 201  
Raleigh, North Carolina 27607  
[www.asct.com](http://www.asct.com)

#### Cytogenetic Technology

Association of Genetic Technologists (AGT)  
Box 15945-288  
Lenexa, KS 66285  
[www.bio.org](http://www.bio.org)

#### Medical Laboratory Science

American Medical Technologist  
710 Higgins Road  
Park Ridge, Illinois 60068

American Society for Clinical Laboratory  
Science  
7910 Woodmont Avenue, #1301  
Bethesda, Maryland 20814  
[www.ascls.org](http://www.ascls.org)

#### All Programs

Commission on Accreditation of  
Allied Health Education Programs  
American Medical Association  
35 E. Wacker Drive, Suite 1970  
Chicago, Illinois 60601-2208

American Society of Clinical  
Pathologists - Board of Registry  
P.O. Box 1277

## **Bioscience Technologies Definitions**

### **Biotechnology/Molecular Sciences:**

- Apply biologic and engineering principles to solve problems in healthcare and pharmaceutical manufacturing
- Gene therapy—genetic engineering and development of new drugs and vaccines etc.

### **Cytotechnology/Cell Sciences:**

- Interpret changes in cells to diagnose benign, pre-cancerous and malignant cells and effects of therapy
- Heredity at the cellular level—diagnose based upon cell groupings

### **Medical Laboratory Science/Clinical Laboratory Sciences:**

- Perform lab analyses and interpret results to help diagnose, monitor and research disease states and health status
- Laboratory scientist—look at body fluids and determine levels

### **Clinical Chemistry:**

- Analyze blood and body fluids to determine the physiological health of the patient
- Determine the biochemical parameters of blood and body fluids to help physicians in the prevention, diagnosis, monitoring and treatment of diseases using state of the art instrumentation to measure enzyme activity, blood gas saturation, concentration of drugs and glucose

### **Immunohematology:**

- Type and cross-match blood from donors and recipients
- Analyze specific blood products for the rapidly expanding field of component therapy

### **Microbiology:**

- Culture, isolate and diagnose bacteria, parasites and viruses to identify the causes of diseases and determine the appropriate antibiotics needed for treatment
- The constant discovery of newly mutated and therapy-resistant organisms means that the role of the microbiologist will become increasingly important.

### **Hematology:**

- Analyze the function and formation of red and white blood cells and other elements of blood and body fluids
- Monitor normal and abnormal cells and assess concentrations of coagulation factors to provide health practitioners with the information necessary to ensure that therapy and treatment are appropriate for each patient.

### **Molecular Biology:**

- Identify genetic disease and infectious agents, or determine paternity DNA/RNA
- extractions, Southern blot, Western blot, PCR and gene sequencing are used in clinical laboratories, in diagnostic genetics laboratories and research laboratories

## **Bioscience Technologies Programs**

**Full-time, day program - prerequisite requirements vary by program.**

### **2-Year Bachelor of Science Degree Options (Two academic years):**

- For students without a bachelor's degree
- Enrollment into the 2+2 option requires the completion of at least two years (55 credits) of specific prerequisite credits prior to enrollment
- Programs offered in biotechnology/molecular sciences, cytotechnology/cell sciences and medical laboratory science/clinical laboratory sciences

### **1-Year Bachelor of Science Degree Options (12 consecutive months):**

- For students who have completed a minimum of 70 specific prerequisite credits prior to enrollment
- It is recommended that the remaining elective course work include biological and chemical science credits
- Programs offered in biotechnology, cytotechnology and medical laboratory science

### **Post-Baccalaureate Specialty Tracks (3 semesters accelerated / 5 semesters extended):**

- For students who have completed a Bachelors Degree that includes at least 30 semester credits of biology and chemistry
- Laboratory technologists, research technicians and junior scientists are also eligible
- Programs offered in clinical chemistry, immunohematology, microbiology, hematology and molecular biology

### **3+2 Entry-Level Master of Science Degree in Bioscience Technology (combined BS/MS):**

- For students who have completed a minimum of 82 credits of specific prerequisite credits prior to enrollment and wish to graduate with a bachelor and master of science degree in a bioscience technology field
- Programs are offered in biotechnology, cytotechnology and medical laboratory science

### **Accelerated Professional Master of Science Degree in Bioscience Technology (12 consecutive months):**

- For students who have earned a bachelor's degree in a non-laboratory science field and have completed 33 specific prerequisite credits
- Programs offered in biotechnology, cytotechnology and medical laboratory science

### **Advanced Master of Science Degree in Bioscience Technology:**

For students with a previously earned BS degree or Post-baccalaureate Certificate from a CAAHEP- or NAACLS-accredited program in Cytotechnology (CT), Medical Technology/Medical Laboratory Science (MT/MLS), Diagnostic Molecular Science (DMS) or other approved laboratory discipline.

Individuals applying to the Advanced MS program in Biotechnology must show evidence of an undergraduate curriculum that is equivalent to the BS 3+1 Biotechnology curriculum offered at Thomas Jefferson University.

- This program can be completed in one year full-time or two years part-time. Programs are offered in biotechnology, cytotechnology and medical laboratory science

## Admissions Requirements

- The 2-Year BS (2+2) option requires that students complete 55 specific prerequisite credits prior to matriculation
- Students interested in the 1-Year BS (3+1) option must meet the specific prerequisite requirements listed below and the additional electives listed in parentheses, minimum of 70 prerequisite credits
- The Post-Baccalaureate Degree options in Specialty Tracks require a bachelor's degree and 30 credits in biology and/or chemistry
- The Combined BS/MS (3+2) degree option requires that students complete 82 specific prerequisite credits before matriculation
- The Accelerated Professional Master of Science degree option requires a bachelor's degree and 33 specific prerequisite credits
- The Advanced Master of Science degree option requires a bachelor's degree in a bioscience technology field

Students must complete specific prerequisite credits prior to matriculation. Academic courses from accredited institutions with a grade of C or above (not a C-) and CLEP scores are acceptable for transfer.

## Prerequisite Course Requirements

### *For 2-Year BS, 1-Year BS, Cominbed BS/MS and Accelerated Professional MS Program*

Course Distribution	2-Year BS Program	1-Year BS Program	Combined BS/MS	Accelerated Professional MS Program
Biological or Chemical Sciences*	16/20	16/20	20/24	20
Organic Chemistry	4***	4***	4***	4
College Algebra or higher math	3	3	N/A	N/A
Mathematics	3	3	3****	3****
English	6	6	6	6
Electives**	26	41	49	N/A
Total Credits	55	70	82	33

\*Suggested biological or chemical sciences courses include but are not limited to General Biology and Anatomy & Physiology.

\*\*A course in Statistics, Physics, Bioinformatics or similar coursework is recommended.

\*\*\* Only required for Biotechnology students. Students interested in Cyotechnology or Medical Laboratory Science must complete an additional 4 credits of biological or chemical science as Organic Chemistry is not required.

\*\*\*\* Statistics is strongly recommended.

\*NOTE: Graduates of associate degree MLT, CLT, BT or other similar programs may transfer technician coursework credits to satisfy the biological/chemical sciences and elective prerequisites.

## **Nursing Information**

### **What do Nurses do?**

Registered nurses (RNs) work to promote health, prevent diseases, and help patients cope with illness. They are advocates and health educators for patients, families and communities. When providing direct patient care, they observe, assess and record symptoms, reactions, and progress; assist physicians during treatments and examinations; administer medications; and assist in convalescence and rehabilitation. Registered nurses develop and manage nursing care plans; instruct patients and their families in proper care; and help individuals and groups take steps to improve or maintain their health.

### **Where do they work?**

Nurses can work in a variety of settings such as hospitals, doctor's offices, home health, nursing homes, public health settings, occupational health or industrial facilities.

### **What is the job outlook?**

Based upon information from the Bureau of Labor Statistics, hospitals and healthcare facilities are continuing to report a nursing shortage. Employment of registered nurses is expected to grow much faster than average for all occupations through 2014, and, because the occupation is very large, many new jobs will result. In fact, registered nurses are projected to create the second largest number of new jobs among all occupations. Most rapid growth is expected in hospitals, outpatient facilities, rehabilitation and chemotherapy. Employment in home healthcare is expected to grow the fastest. As the largest health care occupation, registered nurses held about 2.4 million jobs in 2004. About 3 out of 5 jobs were in hospitals, in inpatient and outpatient departments. Others worked in offices of physicians, nursing care facilities, home health care services, employment services, government agencies, and outpatient care centers. The remainder worked mostly in social assistance agencies and educational services, public and private. About 1 in 4 RNs worked part time.

### **What do nurses earn?**

The average salary for Jefferson nursing class of 2012 graduates was \$64,788, not including sign on bonuses (salary range \$30,000-\$200,000). In addition, 92% of the nursing students had jobs following graduation. Many had at least 2 job offers to choose from before accepting their first position.

### **Who can I contact for more information about Nursing?**

American Nurses Association  
8515 Georgia Avenue  
Suite 400  
Silver Springs, MD 20910-3492  
Phone: 1-800-274-4ANA (4262)  
Web site: [www.nursingworld.org](http://www.nursingworld.org)

American Association of Colleges of Nursing  
1 Dupont Circle NW  
Suite 530  
Washington, DC 20036  
Phone: 202-463-6930  
Web site: <http://www.aacn.nche.edu>

National League for Nursing,  
61 Broadway, 33rd Floor  
New York, NY 10006  
Phone: 212-363-5555  
Web site: <http://www.nln.org>

National Council of State Boards of Nursing  
111 E. Wacker Dr, Suite 2900  
Chicago, IL 60601-4277  
Phone: 312-525-3600  
Web site: <http://www.ncsbn.org>



## Nursing Programs

### **Traditional Prelicensure BSN:**

- For non-nurses who wish to pursue a Bachelor of Science degree in Nursing (BSN)
- A 2-year (4 semester) program completed on a full-time basis, only starts in the fall (September) semester
- 59 specific prerequisite credits required prior to enrollment

### **FACT-1 Year Nursing Program:**

- Intensive option for non-nurses who hold a bachelor's degree in a field other than nursing
- BSN portion of the program can be completed in one calendar year of full-time study, only starts in the Pre-Fall (May) semester
- Following successful completion of the state board exam, students proceed to the graduate program

### **FACT-2 Year Nursing Program:**

*(Previously known as Accelerated Pathway to the MSN for Non-Nurses)*

- For non-nurses who hold a bachelor's degree in a field other than nursing
- A 2-year (4 semester) program completed on a full-time basis, only starts in the fall (September) semester
- Non-nurses are enrolled in the undergraduate program for the first two years and following successful completion of the state board exam, students proceed to the graduate program

### **Masters of Science in Nursing (MSN):**

- For BSN or Nurse Doctorate (ND) students from an accredited school
- 36 credit programs are organized around a core, support and specialty clinical curriculum
- The programs can be completed in 15 months on a full-time basis and up to five years on a part-time basis
- Students can take all MSN core courses online

### **Certified Registered Nurse Anesthetist (CRNA):**

- For BSN or Nurse Doctorate (ND) students from an accredited school
- The program is eight semesters (30 months) and is a full time only curriculum totaling 74 credits
- Students gain over 1,000 hours of clinical experience and administer more than 500 anesthesia's to patients undergoing a variety of surgical/diagnostic procedures
- Program starts in January

### **Doctor of Nursing Practice (DNP):**

- For MSN students from an accredited school
- BSN-DNP option available

## Admission Requirements

- **Traditional Prelicensure BSN:** students must complete 59 specific prerequisite credits prior to entering the program
- **FACT-1 Year and FACT-2 Year:** students must have a bachelor's degree in a non-nursing field and 65 specific prerequisite credits prior to entering the program
- **CRNA:** students must have current 2 years of critical care ICU experience. If a student is granted admission they will be required to have both ACLS and PALS certification
- Academic courses with a grade of C or better are acceptable for transfer

*\* MSN students must submit the Graduate Record Exam (GRE) or the Miller Analogies Test (MAT) scores.*

*\* Applicants with a cumulative undergraduate GPA of 3.2 or higher are not required to submit GRE or MAT scores.*

## Prerequisite Course Requirements

### Traditional Prelicensure BSN

Course	Credits
Anatomy and Physiology w/labs	8
Microbiology w/lab	4
Chemistry I w/lab **	4
Chemistry II or Biochemistry **	4
General (or Intro) Psychology	3
Developmental Psychology or Child Psychology	3
Abnormal Psychology	3
Sociology (Intro or General)	3
English Composition I	3
English (Comp. II, Literature or Speech)	3
College Algebra or Higher	3
Statistics	3
Nutrition	3
Selective *** American culture or ethnic studies, logic, philosophy, ethics, critical thinking, or cultural anthropology	6
Electives	6
<b>Total prerequisite credits</b>	<b>59</b>

### FACT-1 Year & FACT-2 Year

Course	Credits
Anatomy and Physiology w/ labs	8
Microbiology w/ lab	4
Chemistry I w/ lab**	4
Chemistry II or Biochemistry w/lab **	4
Statistics	3
Nutrition	3
Elective credits from undergraduate degree	39
<b>Total prerequisites</b>	<b>65</b>

#### Notes:

1. All science courses must have been completed within 10 years of application.
2. Courses must be completed with a grade of C or better; a C- or below will not be eligible for transfer.
3. Acceptable elective courses are theory-based, not performance-based, coursework. For example; we will accept Introduction to Music but not Piano, and we will accept Introduction to Art but not Painting. We will not accept coursework that is remedial or review in nature, Physical Education or Technical courses. Coursework may include Arts, Humanities, Social Science, Foreign Languages, Science, Math, Business, and History.

\*\* General Chemistry accepted.

\*\*\* Please note that American History, Western Civilization and Religious Studies are NOT appropriate Selective credits

## **Nurse Practitioner Vs. Physician Assistant**

Nurse Practitioners are licensed, registered nurses who have received advanced training for the delivery of primary care. The majority of training programs lead to a master's of nursing degree. They are able to diagnose and treat common acute illnesses and injuries. Nurse Practitioners are regulated at the state level and have a scope of practice that is independent of a physician. In most states, they can dispense medications to patients.

Physician Assistants are certified healthcare professionals who provide primary care under the supervision of a physician. The majority of training programs lead to a master's degree. They are able to diagnose and to treat minor injuries. Physician Assistants are regulated at the state level and are required by every state to always be under the supervision of a physician. In most states, they can dispense medications to patients.

For more information, please visit the following website: [http://www.wapa.org/pdfs/np-pa\\_chart.pdf](http://www.wapa.org/pdfs/np-pa_chart.pdf)

# Occupational Therapy Information

## What is Occupational Therapy?

Occupational therapy uses everyday activities as the means of helping people to achieve independence. The term occupation refers to activities that are meaningful to the individual within the environments in which the person lives.

Therapists work with individuals who have conditions that are mentally, physically, developmentally, or emotionally disabling, and help them to develop, recover, or maintain daily living and work skills. They not only help clients improve basic motor functions and reasoning abilities, but also compensate for permanent loss of function. Their goal is to help clients have independent, productive, and satisfying lives.

For the person with a physical disability, the first focus is on performing critical daily activities, such as dressing, grooming, bathing, and eating. Once these skills are mastered, the occupational therapy program is built around the skills needed to perform a person's daily responsibilities, such as caring for a home and family, participating in education, or reaching and holding equipment.

The goals for a client with mental illness are also based on the ability to function independently. In treating mental or emotional problems, the therapy program often includes practice in managing time, working productively with others, and enjoying leisure.

## Where do they work?

Occupational therapists work in the following types of settings: hospitals, academic health centers, schools, private practice, the military, colleges and universities, outpatient rehabilitation facilities, adult day-care programs, medical centers, skilled nursing facilities, rehabilitation centers, home health agencies, government agencies, sub-acute care hospitals, assisted living facilities and state hospitals.

## What is the job outlook?

Based upon information from the Bureau of Labor Statistics, employment of occupational therapists is expected to increase much faster than the average for all occupations through the year 2018, due to anticipated growth in demand for rehabilitation and long-term care services. The growing number of older Americans who may need specialized services and the ever expanding application of occupational therapy to various disabilities should contribute significantly to an increase in demand and the creation of as many as 15,000 new jobs before the end of the century. Areas of greatest opportunity include community settings and under-served geographic areas.

## What do OTs earn?

The average salary for Jefferson occupational therapy class of 2012 graduates was \$61,242 (salary range \$41,300 - \$72,000). 98% of the occupational therapy students had jobs following graduation or their last clinical affiliation. Many had between 2 and 3 job offers to choose from before accepting their first position.

## Who can I contact for more information about Occupational Therapy?

American Occupational Therapy Association  
4720 Montgomery Lane  
PO Box 31220  
Bethesda, MD 20824-1220  
Phone: 301.652.2682 or 800.729.2682  
Web site: [www.aota.org](http://www.aota.org)

## Occupational Therapy Programs

### **BS-MS Degree:**

- Full-time, 3 year program
- Begins in September only
- All non PACE students will apply and submit all documents via OTCAS, the National Occupational Therapy Application Service, at [www.otcas.org](http://www.otcas.org)
- A supplemental TJU application is also required

### **Entry-Level Master of Science Degree:**

- Full-time, 2 year program
- Begins in September only
- This program is designed for those students who have a bachelor's degree in a field other than occupational therapy or –
- Complete the 3+2 program with either Villanova University, Saint Joseph's University, Muhlenberg College, Immaculata University, the University of Delaware, Messiah College or Juniata College.
- All non 3+2 students will apply and submit all documents via OTCAS, the National Occupational Therapy Application Service, at [www.otcas.org](http://www.otcas.org)
- A supplemental TJU application is also required.

### **Occupational Therapy Doctorate:**

- For students who possess at least a Bachelor of Science Degree in Occupational Therapy
- Offered in a blended on-site and on-line format.

### **Occupational Therapy Certificates for Advanced Practice**

A four course graduate level curriculum designed to provide the learner with advanced knowledge and skills in a particular area of practice

### ***Admission Requirements***

Students must complete specific prerequisite credits prior to matriculation. Academic courses from accredited institutions with a grade of C or above and CLEP scores are acceptable for transfer. For the graduate programs, the Graduate Record Exam (GRE) or the Miller Analogies Test (MAT) is also required.

The following institutions have 3+2 Articulated Curriculum Agreements with Jefferson for the Master's in Occupational Therapy Program. Under these agreements students will earn both the Bachelor's degree and the Master's in Occupational Therapy in 5 years after graduating from high school. Below are the admission requirements and information about each agreement for high school students.

<b>College</b>	<b>Admission Requirements</b>	<b>Application Requirements &amp; Deadline</b>	<b>Curriculum Options</b>	<b>Curriculum Requirements</b>
<b>Immaculata University</b>	-SAT (all 3 sections) 1650 or higher -Cumulative GPA of 3.2 or higher -Interview with Immaculata Univ.-JEFFERSON joint admissions committee (late winter – early spring)	-Official high school transcripts -SAT scores -Essay -Activities Resume (including OT hours) -Application fee -December 15 <sup>th</sup> deadline	-3 – year B.S. in Exercise Science/Pre-OT - Credits earned during the first year at JEFFERSON will be counted toward the completion of the Immaculata Univ. B.S. degree	-Students must earn at least a 3.0 overall GPA -A grade of at least a 'C' is required to transfer prerequisite coursework to JEFFERSON
<b>Juniata College</b>	-SAT (Reading and Math) 1100 or higher -Cumulative GPA of 3.35 or higher -Interview with Juniata College-JEFFERSON joint admissions committee (late winter – early spring)	-Official high school transcripts -SAT scores -Essay -Activities Resume (including OT hours) -Application fee -Juniata College deadline	-3 – year B.S. in selected Juniata College track - Credits earned during the first year at JEFFERSON will be counted toward the completion of the Juniata College B.S. degree	-Students must earn at least a 3.0 overall GPA -A grade of at least a 'C' is required to transfer prerequisite coursework to JEFFERSON
<b>Messiah College</b>	-SAT (critical reading and math) 1650 or higher -Cumulative GPA of 3.2 or higher -Interview with MC - JEFFERSON joint admissions committee (late winter – early spring)	-Official high school transcripts -SAT scores -Essay -Activities Resume (to include OT hours) -Application fee -December 15 <sup>th</sup> deadline	-3 – year B.S. in Biopsychology or Health and Exercise Science curricular track -Credits earned during the first year at JEFFERSON will be counted toward the completion of the Villanova University's B.S. degree in Biology or Psychology	-Students must earn at least a 3.0 overall GPA -A grade of at least a 'C' is required to transfer prerequisite coursework to JEFFERSON
<b>Muhlenberg College</b>	-SAT (CR&M) 1280 or higher with neither score lower than 580 -Cumulative GPA of 3.2 or higher -Interview with Muhlenberg-JEFFERSON joint admissions committee (late winter – early spring)	-Official high school transcripts -SAT scores -Essay -Activities Resume (including OT hours) -Application fee -December 1st deadline	-3 – year B.S. in Natural Science track or the A.B. Psychology or Sociology - Credits earned during the first year at JEFFERSON will be counted toward the completion of the Muhlenberg College's B.S. or A.B. degree	-Students must earn at least a 3.0 overall GPA -A grade of at least a 'C' is required to transfer prerequisite coursework to JEFFERSON

<p><b>Saint Joseph's University</b></p>	<p>-SAT (critical reading and math) 1200 or higher -Cumulative GPA of 3.3 or higher -Interview with SJU - JEFFERSON joint admissions committee (late winter – early spring)</p>	<p>-Official high school transcripts -SAT scores -Personal Statement -2 letters of reference -Application fee -November 30th deadline</p>	<p>-3 – year B.S. in Biology or Interdisciplinary Health Services - Credits earned during the first year at JEFFERSON will be counted toward the completion of the SJU University's B.S. degree</p>	<p>-Students must earn at least a 3.0 overall GPA -A grade of at least a 'C' is required to transfer prerequisite coursework to JEFFERSON</p>
<p><b>University of Delaware</b></p>	<p>Please refer to the Undergraduate Admissions Criteria as outlined by the University of Delaware - Interview with U of D -JEFFERSON joint admissions committee (late January – early February)</p>	<p>-Official high school transcripts -SAT Reasoning Test scores -Admissions Essay with reference to OT interest - letters of reference -Application fee -December 1st deadline</p>	<p>-3 – year B.S. in Health Studies - Credits earned during the first year at JEFFERSON will be counted toward the completion of the University of Delaware B.S. degree</p>	<p>-Students must earn at least a 3.0 overall GPA -A grade of at least a 'C' is required to transfer prerequisite coursework to JEFFERSON</p>
<p><b>Villanova University</b></p>	<p>-SAT (critical reading and math) 1320 or higher -Cumulative GPA of 3.2 or higher -Interview with VU - JEFFERSON joint admissions committee (late winter – early spring)</p>	<p>-Official high school transcripts -SAT scores -Essay -Activities Resume (to include OT hours) -Application fee -November 1st deadline</p>	<p>-3 – year B.S. in Biology or B.S. in Psychology curricular track -Credits earned during the first year at JEFFERSON will be counted toward the completion of the Villanova University's B.S. degree in Biology or Psychology</p>	<p>-Students must earn at least a 3.0 GPA both overall -A grade of at least a 'C' is required to transfer prerequisite coursework to JEFFERSON</p>

## Prerequisite Course Requirements

### *Combined BSMS in Occupational Therapy*

Course	Credits
Human Life Sciences (including lab)*	
Anatomy & Physiology I	4
Anatomy & Physiology II	4
Psychology	
Developmental or Lifespan (not one specific age level)	3
Abnormal	3
Social Sciences	
Sociology	3
Cultural and/or ethnic diversity course	3
English	
Composition (strongly recommended)	3
English elective	3
Mathematics	
Statistics	3
Electives	
Humanities, Arts, Math, Social, or Natural Sciences	29
Total	58

\*Strongly recommend Anatomy & Physiology. Other acceptable science courses include Kinesiology and Exercise Physiology

### *Entry-level Master's in Occupational Therapy*

Course	Credits
Human Life Sciences (including lab)*	
Anatomy & Physiology I	4
Anatomy & Physiology II	4
Psychology	
Developmental or Lifespan (not one specific age level)	3
Abnormal	3
Social Sciences	
Sociology	3
Cultural and/or ethnic diversity course	3
English	
Composition (strongly recommended)	3
English elective	3
Mathematics	
Statistics	3
Total	29

\*Strongly recommend Anatomy & Physiology. Other acceptable science courses include Kinesiology and Exercise Physiology

# Physical Therapy Information

## What is a Physical Therapist?

Physical therapists provide services that help restore function, improve mobility, relieve pain, and prevent or limit permanent physical disabilities of patients suffering from injuries or disease. They restore, maintain, and promote overall fitness and health.

Physical therapists examine patients' medical histories, then test and measure their strength, range of motion, balance and coordination, posture, muscle performance, respiration, and motor function. They also determine patients' ability to be independent and reintegrate into the community or workplace after injury or illness. Next, they develop treatment plans describing the treatment strategy, its purpose, and the anticipated outcome.

Treatment often includes exercise for patients who have been immobilized and lack flexibility, strength, or endurance. They encourage patients to use their own muscles to further increase flexibility and range of motion before finally advancing to other exercises improving strength, balance, coordination, and endurance. Their goal is to improve how an individual functions at work and home.

Physical therapists also use electrical stimulation, hot packs or cold compresses, and ultrasound to relieve pain and reduce swelling. They may use traction or deep-tissue massage to relieve pain. Physical therapists also teach patients to use assistive and adaptive devices such as crutches, prostheses, and wheelchairs. They may show patients exercises to do at home to expedite their recovery.

## Where do they work?

Although many physical therapists practice in hospitals, more than 70 percent practice in private physical therapy offices, community health centers, industrial health centers, sports facilities, rehabilitation centers, nursing homes, home health agencies, schools or pediatric centers; work in research institutions; or teach in colleges and universities.

## What is the job outlook?

According to a report by Vector Research commissioned by the American Physical Therapy Association, physical therapists are expected to be among the fastest growing occupations through the year 2018.

## What do PTs earn?

The average salary for Jefferson physical therapy class of 2012 graduates \$69,432 (salary range \$56,180 - \$125,000). 100% of the physical therapy students who responded to our survey had jobs following their graduation or their last clinical affiliation. Many had at least 2 job offers to choose from before accepting their first position.

## Who can I contact for more information about Physical Therapy?

American Physical Therapy Association  
1111 N. Fairfax Street  
Alexandria, VA 22314-1488  
<http://www.apta.org>

## Physical Therapy Program

### Doctor of Physical Therapy (DPT) Degree Program:

- Full-time, 2 year, 9 month program
- Students must have a baccalaureate degree in any field
- -or
- Complete the 3+3 program with either Penn State Abington, Villanova University, Saint Joseph’s University, Elizabethtown College, Muhlenberg College, Immaculata University or Juniata College.
- All non 3+3 students will apply and submit all documents via PTCAS, the National Physical Therapy Application Service, at [www.ptcas.org](http://www.ptcas.org)
- A supplemental TJU application is also required
- Must successfully complete the following prerequisite courses prior to matriculation

### *DPT Prerequisite Course Requirements*

Course	Credits
Anatomy and Physiology 1,2	8
General Chemistry 1,2	8
General Biology 1,2	8
Physics 1,2,3	8
College Algebra/Trigonometry, Precalculus or Calculus	3
Statistics	3
Humanities (must include at least 3 credits of composition/writing with remaining credits in ethics, philosophy or other humanities courses)	9
Social Sciences (Including 6 credits of Psychology - Abnormal and Developmental preferred)	9
<b>Total</b>	<b>56</b>

1 Course must meet requirements for science majors. There is a 10-year limit on the transferability of science credits.

2 Course must include laboratory.

3 Physics does not need to be Calculus-based.

\* Transfer credit will be awarded for course work taken at an accredited college or university from which a grade of “C” or better has been achieved.

The Following Institutions have 3+3 Articulated Curriculum Agreements with Jefferson for the Doctor of Physical Therapy Program. Under these agreements students will earn both the Bachelor’s degree and the Doctorate in Physical Therapy in 6 years after graduating from high school.

<b>College</b>	<b>Admission Requirements</b>	<b>Application Requirements &amp; Deadline</b>	<b>Curriculum Options</b>	<b>Curriculum Requirements</b>
<b>Elizabethtown College</b>	-SAT (critical reading and math) 1200 or higher -Cumulative GPA of 3.2 or higher -Interview with Etown-JEFFERSON joint admissions committee (February – March)	-Official high school transcripts -SAT scores -Personal Statement describing PT interest -2 references -Application fee -December 15th deadline	-3 – year B.S. in Biology curricular track -Credits earned during the first year at JEFFERSON will be counted toward the completion of the Elizabethtown College’s B.S. degree in Biology	-Students must earn at least a 3.0 GPA both overall and in the sciences -A grade of at least a ‘C’ is required to transfer prerequisite coursework to JEFFERSON
<b>Immaculata University</b>	-SAT (all 3 sections) 1650 or higher -Cumulative GPA of 3.2 or higher -Interview with Immaculata Univ.-JEFFERSON joint admissions committee (late winter – early spring)	-Official high school transcripts -SAT scores -Essay -Activities Resume (including PT hours) -Application fee -December 15th deadline	-3 – year B.S. in Exercise Science/Pre-PT - Credits earned during the first year at JEFFERSON will be counted toward the completion of the Immaculata Univ. B.S. degree	-Students must earn at least a 3.0 overall GPA -A grade of at least a ‘C’ is required to transfer prerequisite coursework to JEFFERSON
<b>Juniata College</b>	-SAT (Reading and Math) 1100 or higher -Cumulative GPA of 3.35 or higher -Interview with Juniata College-JEFFERSON joint admissions committee (late winter – early spring)	-Official high school transcripts -SAT scores -Essay -Activities Resume (including PT hours) -Application fee - Juniata College deadline	-3 – year B.S. in selected Juniata College track - Credits earned during the first year at JEFFERSON will be counted toward the completion of the Juniata College B.S. degree	-Students must earn at least a 3.0 overall GPA -A grade of at least a ‘C’ is required to transfer prerequisite coursework to JEFFERSON
<b>Muhlenberg College</b>	-SAT (CR&M) 1280 or higher with neither score lower than 580 -Cumulative GPA of 3.2 or higher -Interview with Muhlenberg-JEFFERSON joint admissions committee (late winter – early spring)	-Official high school transcripts -SAT scores -Essay -Activities Resume (including PT hours) -Application fee -December 1st deadline	-3 – year B.S. in Biology or Natural Science track or the A.B. in Dance, Psychology or Sociology - Credits earned during the first year at JEFFERSON will be counted toward the completion of the Muhlenberg College’s B.S. or A.B. degree	-Students must earn at least a 3.0 GPA both overall and in the sciences -A grade of at least a ‘C’ is required to transfer prerequisite coursework to JEFFERSON

<b>Penn State Abington</b>	<ul style="list-style-type: none"> <li>-SAT (all 3 sections) 1800 or higher</li> <li>-Class rank in the top 10%</li> <li>-Interview with PSU-Ab.</li> <li>-JEFFERSON joint admissions committee (late winter – early spring)</li> </ul>	<ul style="list-style-type: none"> <li>-Official high school transcripts</li> <li>-SAT scores</li> <li>-Personal Statement</li> <li>-2 letters of reference</li> <li>-Application fee</li> <li>-November 30th deadline</li> </ul>	<ul style="list-style-type: none"> <li>-3 – year B.S. in Science with the Life Sciences Option track</li> <li>-Credits earned during the first year at JEFFERSON will be counted toward the completion of the PSU-Ab. University’s B.S. degree</li> </ul>	<ul style="list-style-type: none"> <li>-Students must earn at least a 3.0 GPA both overall and in the sciences</li> <li>-A grade of at least a ‘C’ is required to transfer prerequisite coursework to JEFFERSON</li> </ul>
<b>Saint Joseph’s University</b>	<ul style="list-style-type: none"> <li>-SAT (critical reading and math) 1300 or higher</li> <li>-Cumulative GPA of 3.3 or higher</li> <li>-Interview with SJU - JEFFERSON joint admissions committee (late winter – early spring)</li> </ul>	<ul style="list-style-type: none"> <li>-Official high school transcripts</li> <li>-SAT scores</li> <li>-Personal Statement</li> <li>-2 letters of reference</li> <li>-Application fee</li> <li>-November 30th deadline</li> </ul>	<ul style="list-style-type: none"> <li>-3 – year B.S. in Biology or Interdisciplinary Health Services</li> <li>- Credits earned during the first year at JEFFERSON will be counted toward the completion of the SJU University’s B.S. degree</li> </ul>	<ul style="list-style-type: none"> <li>-Students must earn at least a 3.0 GPA both overall and in the sciences</li> <li>-A grade of at least a ‘C’ is required to transfer prerequisite coursework to JEFFERSON</li> </ul>
<b>Villanova University</b>	<ul style="list-style-type: none"> <li>-SAT (critical reading and math) 1320 or higher</li> <li>-Cumulative GPA of 3.7 or higher</li> <li>-Interview with VU - JEFFERSON joint admissions committee (late winter – early spring)</li> </ul>	<ul style="list-style-type: none"> <li>-Official high school transcripts</li> <li>-SAT scores</li> <li>-Essay</li> <li>-Activities Resume (to include PT hours)</li> <li>-Application fee</li> <li>-November 1st deadline</li> </ul>	<ul style="list-style-type: none"> <li>-3 – year B.S. in Biology curricular track</li> <li>-Credits earned during the first year at JEFFERSON will be counted toward the completion of the Villanova University’s B.S. degree in Biology</li> </ul>	<ul style="list-style-type: none"> <li>-Students must earn at least a 3.0 GPA both overall and in the sciences</li> <li>-A grade of at least a ‘C’ is required to transfer prerequisite coursework to JEFFERSON</li> </ul>

## **Occupational Therapy**

**vs.**

## **Physical Therapy**

Occupational Therapy is the use of self-care, work/productive activities, and play/leisure activities to increase independent function, enhance development, and prevent disability. Focusing on adaptation, OT involves adapting tasks and the environment to maximize independence and quality of life. The term occupation refers to activities that are meaningful to the individual within the environments in which the person lives.

Physical Therapy is the use of exercise, cardiovascular endurance training, and training in activities of daily living to assess joint motion, muscle strength and endurance, and function of heart and lungs, among other responsibilities. Focusing on a sense of cure, PT is used to help restore function, improve mobility, relieve pain, and prevent or limit permanent physical disabilities of patients suffering from injuries or disease.

## **Couple and Family Therapy**

As families deal with the challenges of stress, changing family lifecycles, communicating across generations, and the realities of blended families; they seek help from marriage and family therapists. Whether treating emotional disorders, substance abuse, sexual abuse, juvenile offenders, or couples in crisis, Jefferson-trained therapists aim to help people understand, respect, and improve the quality of their relationships. In a culture that focuses increasingly on healthy living and family life, opportunities for marriage and family therapists are expected to grow.

### **Jefferson's Couple and Family Therapy master's degree program:**

- Is a partnership between Thomas Jefferson University and the Council for Relationships (CFR), one of the oldest and most respected couple and family training programs in the country.
- Is fully accredited through COAMFTE
- Provides unsurpassed clinical care, education, research, and training.
- Is offered full-time and can be completed in two years.
- Graduates will have credentials for licensure in PA, NJ, DE and NY
- Is also the Division of Couple and Family Studies, Department of Psychiatry and Human Behavior, Jefferson Medical College.

### **Jefferson's Couple and Family Therapy students:**

- study with faculty members who are CFR therapists and certified by the American Association of Marriage and Family Therapy (AAMFT)
- are exposed to a variety of educational programs at CFR
- Benefit from the variety of clinical locations available from the 14 CFR locations and multitude of sites throughout the Jefferson Health System.

### **Requirements**

- Bachelor's degree in any field
- GREs (preferred) or MATs
- 3 credits each of Introductory Psychology , Abnormal Psychology and Statistics
- Undergraduate gpa of at least a 3.0
- Work-related experience will be considered

### **What do Couple and Family Therapists earn?**

The average salary for Jefferson's Couple and Family Therapy class of 2012 graduates was \$38,166 (salary range \$34,500 - \$40,000). 100% of the couple and therapy students who responded to our survey had jobs following their graduation.

## Pharmacy Information

### What is Pharmacy?

Pharmacy links the health sciences with the chemical sciences, and it is charged with ensuring the safe use and distribution of medication. The scope of pharmacy practice includes traditional roles such as compounding and dispensing medications on the orders of physicians, as well as modern services related to patient care, including clinical services, reviewing medications for safety and efficacy, and providing drug information. Pharmacists are experts on drug therapy and are the primary health professionals who optimize medication use to provide patients with positive health outcomes. Pharmacy revolves around people and medicines with special emphasis on the manufacture of medicines, their supply, appropriate use and effects. The ultimate concern of Pharmacy is to ensure that the patient receives the appropriate medicines and benefits from the proper use of these.

Pharmacy is an evolving profession that offers excellent career prospects. The work is interesting and varied and offers the opportunity to join the healthcare team in safeguarding the nation's health in many working environments and geographic locations.

### Where do Pharmacy professionals work?

There were approximately 230,000 pharmacists in 2004. About 61 percent work in community pharmacies that are independently owned or part of a drugstore chain, grocery store, department store, or mass merchandiser. Most community pharmacists are salaried employees, but some are self-employed owners. About 24 percent of salaried pharmacists work in hospitals. Others work in clinics, mail-order pharmacies, pharmaceutical wholesalers, home health care agencies, or the Federal Government.

### What is the job outlook?

Very good employment opportunities are expected for pharmacists over the 2004-14 period as the number of job openings created by employment growth and the need to replace pharmacists who leave the occupation are expected to exceed the number of pharmacy graduates. Enrollments in pharmacy programs are rising as high salaries and good job prospects attract students. Despite this increase in enrollments, job openings should still be more numerous than those seeking employment.

Employment of pharmacists is expected to grow faster than the average for all occupations through the year 2014, because of the increasing demand for pharmaceuticals, particularly from the growing elderly population. The increasing numbers of middle-aged and elderly people—who use more prescription drugs than younger people—will continue to spur demand for pharmacists in all employment settings. Other factors likely to increase the demand for pharmacists include scientific advances that will make more drug products available, new developments in genome research and medication distribution systems, increasingly sophisticated consumers seeking more information about drugs, and coverage of prescription drugs by a greater number of health insurance plans and Medicare.

### What do pharmacists earn?

Average starting salaries for pharmacist continue to be very competitive. The average salary for Jefferson's Pharmacy class of 2012 graduates was \$91,971 (salary range \$42,000 - \$130,000). The first graduating class (2012) had a 100% pass rate on the NAPLEX (North American Pharmacist Licensure Examination).

### Who can I contact for more information about Pharmacy?

Academy of Managed Care Pharmacy  
100 North Pitt Street, Suite 400  
Alexandria, VA 22314  
800-827-2627  
[www.amcp.org](http://www.amcp.org)

American Pharmacist Association  
1100 15th Street NW, Suite 400  
Washington, DC 20005-1707  
202-628-4410  
[www.aphanet.org](http://www.aphanet.org)

National Community Pharmacist Association  
100 Daingerfield Road  
Alexandria, VA 22314.

National Pharmaceutical Association  
107 Kilmayne Drive, Suite C  
Cary, NC 27511

## Pharmacy Program

Students in the JSP Doctor of Pharmacy program will develop the knowledge and expertise to practice in a range of pharmacy settings, including community or retail, hospitals, clinics, long-term care facilities, the pharmaceutical industry, pharmaceutical advertising, or publishing companies.

The JSP program is four years long and students will complete a minimum of 137 credits. The program includes both classroom instruction (didactic component) and hands-on (experiential) learning. The experiential component will encompass approximately 30% of the entire program.

In the classroom, students will engage in discussion and learn through integration and application of basic, clinical and administrative sciences. Our curriculum is designed to help students effectively collaborate with other health care professionals to ensure that all patients receive safe and effective drug therapy and to understand how pharmacists can influence the health care system and positively impact public health.

The experiential learning component of the program will begin their first semester. These experiences will take place every semester during the first 3 years of the program. During the final year of the program, students participate in full-time clinical experiences (approximately 40 hours/week) in a variety of pharmacy settings. Four of these experiences are required and include Community Pharmacy, Hospital/Health System Pharmacy, Ambulatory Care, and Inpatient/Acute Care. Students will have the opportunity to select additional elective experiences to meet their personal and/or career needs.

### Admission and Application Requirements

- All students will apply and submit all documents via PharmCAS, the National Pharmacy Application Service, at [www.pharmcas.org](http://www.pharmcas.org)
- A supplemental TJU application is also required. A link to access the supplemental will be sent to students after their application is downloaded from PharmCAS.
- The PCAT is required. Scores in the 70th percentile or higher are considered competitive, however, students with a minimum score of 50 may be considered.
- Only PCAT scores taken within 2 years of application can be considered.
- Students should have a minimum cumulative GPA of 2.7 to be considered. A cumulative GPA of at least a 3.0 is considered competitive.
- Students should have a minimum cumulative science GPA of 2.7 to be considered. A cumulative science and math gpa of at least a 3.0 is considered competitive.
- Students must earn at least a “C” (not a “C-“) in all prerequisite courses.
- All science courses must include both lecture and lab.
- All science and math prerequisite courses cannot be older than 5 years from application to Jefferson. Exceptions to the 5 year rule include continuous enrollment that exceeds 5 years and/or continuous work experience since graduation a laboratory/science setting.
- Students must complete the specific prerequisite credits prior to matriculation.
- An interview is required of all eligible applicants and will be initiated by TJU

### *Pharmacy Prerequisite Course Requirements*

Course	Credits	Credits
Anatomy & Physiology I or Anatomy (lecture/lab)	4 sem. hrs.	6 qtr. hrs.
Anatomy & Physiology II or Physiology (lecture/lab)	4 sem. hrs.	6 qtr. hrs.
Biology I	4 sem. hrs.	6 qtr. hrs.
Biology II	4 sem. hrs.	6 qtr. hrs.
General Chemistry I	4 sem. hrs.	6 qtr. hrs.
General Chemistry II	4 sem. hrs.	6 qtr. hrs.
Calculus	3 sem. hrs.	5 qtr. hrs.
Organic Chemistry I	4 sem. hrs.	6 qtr. hrs.
Organic Chemistry II	4 sem. hrs.	6 qtr. hrs.
Physics I *	4 sem. hrs.	6 qtr. hrs.
Physics II *	4 sem. hrs.	6 qtr. hrs.
Microbiology	4 sem. hrs.	6 qtr. hrs.
English Composition	3 sem. hrs.	5 qtr. hrs.
Social Sciences	9 sem. hrs.	15 qtr. hrs.
Humanities	9 sem. hrs.	15 qtr. hrs.
Total	68	101

\* Can be at algebra-based or calculus-based.

- All science and math coursework must be completed within 5 years of application to JSP.

# Physician Assistant Information

## What is a Physician Assistant?

A Physician Assistant (PA) is a nationally-certified, state licensed healthcare provider who practices under the supervision of a physician. PAs provide a large range of medical and surgical services and can be found in almost every healthcare setting. Under physician supervision, PAs conduct physical examinations, order and interpret diagnostic tests, diagnose and treat illnesses, provide patient counseling, assist in the operating room and prescribe medications.

## Where do Physician Assistants work?

PAs can be found in physician offices, hospitals, operating rooms, long-term care facilities, emergency rooms and trauma centers. PAs practice in all areas of medicine including pediatrics, family medicine, internal medicine, general surgery and surgical subspecialties, emergency medicine, obstetrics and gynecology.

## What is the job outlook?

According to the Bureau of Labor Statistics, employment of physician assistants is expected to increase 30 percent from 2010 to 2020, much faster than the average for all occupations.

As more physicians enter specialty areas of medicine, there will be a greater need for primary healthcare providers, such as physician assistants. Because physician assistants are more cost-effective than physicians, they are expected to have an increasing role in giving routine care.

Physician assistants also will be needed because the population in general is growing. More people means more need for healthcare specialists.

In addition, employment growth is expected because the large baby-boom generation is getting older. As they age, baby boomers will be increasingly susceptible to ailments and conditions such as heart attack, stroke, and diabetes. Physician assistants are expected to have an increasing role in keeping these people healthy and caring for them when they get ill.

Healthcare providers are also expected to use more physician assistants in new ways as states continue to allow assistants to do more procedures.

## What do Physician Assistants earn?

Average starting salaries for Physician Assistants are very competitive. According the Bureau of Labor Statistics the median annual wage and salary earnings of Physician Assistant in May 2010 was \$86,410.

## Who can I contact for more information about Physician Assistant?

American Academy of Physician Assistants  
2318 Mill Road, Suite 1300  
Alexandria, VA 22314  
703-836-2272  
[www.aapa.org](http://www.aapa.org)

Physician Assistant Education Association  
1300 N. Washington Street, Suite 710  
Alexandria, VA 22314  
703-548-5538  
[www.paeaonline.org](http://www.paeaonline.org)

## Physician Assistant Program

### Admission and Application Requirements

- All students will apply and submit all documents via CASPA, the National Physical Assistant Application Service, at [www.caspa.org](http://www.caspa.org)
- A supplemental TJU application is also required. A link to access the supplemental will be sent to students after their application is downloaded from CASPA.
- The GRE or MCAT is not required. However, if a student takes those exams, they are asked to submit those score reports to CASPA during the application process.
- Students must earn at least a “C” (not a “C-“) in all prerequisite courses.
- All science courses must include both lecture and lab.
- All science and math prerequisite courses cannot be older than 5 years from application to Jefferson. Exceptions to the 5 year rule include continuous enrollment that exceeds 5 years and/or continuous work experience since graduation a laboratory/science setting.
- Students must complete the specific prerequisite credits prior to matriculation.
- An interview is required of all eligible applicants and will be initiated by TJU

Course	Credits
Anatomy & Physiology I w/ Lab	4
Anatomy & Physiology II w/ Lab	4
General Biology I w/ Lab	4
General Biology II w/ Lab	4
General Chemistry I w/ Lab	4
General Chemistry II w/ Lab	4
Microbiology w/ Lab	4
Statistics	3
Psychology	3
Total	34

## **Jefferson College of Population Health**

The **Jefferson College of Population Health (JCPH)** is an integral part of Thomas Jefferson University. At JCPH, we prepare leaders with global vision to develop, implement, and evaluate health policies and systems that improve the health of populations and thereby enhance the quality of life.

We fulfill this mission by providing exemplary graduate academic programming, continuing education courses and conferences, and sustained research and consulting in areas of health policy, population health, healthcare quality and safety, and chronic care management.

### **What is Public Health?**

**Public Health** is an interdisciplinary field of study and practice with two primary goals – to prevent illness, disease, and injury; and to promote and protect human health. Public Health achieves these goals while supporting human rights and respecting the dignity of the individual.

### **Where do public health professionals work? What kind of work do they do?**

Public Health professionals work in state and local public health departments or health centers, non-governmental health organizations (NGOs), schools and universities, professional health agencies, health insurance companies, and businesses such as the pharmaceutical industry. They also engage in public health research and work internationally in global health environments.

MPH professionals track disease outbreaks, conduct community health assessments, plan public health education programs, develop public health policies to reduce adverse environmental exposures, advocate for government policy changes to increase public access to preventive health services, and direct campaigns to prevent infectious disease or reduce risk factors that encourage chronic conditions.

### **What kind of educational or work background is expected of public health students?**

Jefferson's MPH degree program is intended for recent college graduates with majors in natural or social sciences; students currently enrolled in a medical, nursing or law degree program who wish to earn an additional degree in public health; and practicing health professionals working in government, community health organizations, healthcare settings, health insurance companies, the pharmaceutical industry, and academic institutions.

## **Program Overview**

- Jefferson’s MPH is a competency-based degree program accredited through the Council of Education for Public Health (CEPH).
- The public health clerkship is a semester-long community experience with a public health-related organization that can be completed locally, elsewhere in the United States, or abroad.
- The MPH degree program requires completion of 45 credits, including a clerkship (field experience) and capstone research project.
- The program stresses competencies in five key public health areas – behavioral and social sciences; biostatistics; environmental health sciences, epidemiology; and health policy and management.
- The curriculum also emphasizes certain skills, such as leadership, systems thinking, health communication and cultural humility and competency.
- Classes are offered across three 14-week sessions per year that begin in September and end by mid-late July.
- Full-time students can complete the program in 16 – 20 months. Part-time students can complete the program in 24-48 months.
- Students enrolled in a Jefferson joint degree program (MD/MPH; JD or MJ/MPH; MSN/MPH) can complete coursework in one year with the capstone research project completed in a subsequent year.
- To accommodate working adults, classes are offered after 5:00 p.m. during the week or on weekends at the Center City campus of Thomas Jefferson University.
- Students can begin the program in September or January.

## **Admissions Considerations**

- Earned baccalaureate degree with approximate GPA of 3.0
- One of the following:
  - Competitive score on the GRE or other graduate entrance examination
  - Graduate degree or at least 9 credits of earned graduate coursework with grade of “B” or higher
  - Current enrollment in a graduate clinical program (e.g., MD, MSN)
  - GPA of 3.3 or higher and specified coursework with grade of “B” or higher from a Jefferson-affiliated college or university
- Competency in basic statistics (recommended)
- Previous professional or volunteer experience in a community health setting

## **Application Requirements**

- Completion of online application form
- Payment of \$25 application fee
- Official transcripts from all graduate and undergraduate institutions attended
- Submission of TOEFL courses, if applicable
- GRE or equivalent
- Two letters of recommendation

- Personal statement

Eligible candidates will be invited for an interview.

## **MPH Curriculum**

### **Core Courses (35 credits)**

- Introduction to Public Health
- Behavioral and Social Theories in Public Health
- Basic Public Health Statistics
- Fundamentals of Epidemiology
- U.S. Healthcare Organization and Delivery
- Health Services Research
- Fundamentals of Environmental Health
- Public Health Policy and Advocacy
- Program Planning and Evaluation
- Clerkship
- Capstone Seminar
- Capstone Project

### **Electives (10 credits)**

- Advanced Public Health Statistics
- Qualitative Research Methods
- Advanced Epidemiology
- Epidemiology of Diabetes and Obesity
- Environmental and Occupational Toxicology
- Global Health
- History of Public Health
- Cultural Competency and Humility
- Health Communication

# Health Policy

## Master of Science in Health Policy (MS-HP)

### Why is there a need for a degree in health policy?

In an era when the costs of health care continue to rise, access is absent for many Americans, and troubling issues around quality and safety have entered the public lexicon, never has the preparation of leaders to guide health policy been more urgent.

### What do health policy professionals do?

Health policy professionals critically analyze the organization, financing and delivery of health care; rigorously apply analytic skills to plan, implement, and evaluate health policy; and produce research evidence to support policy development and change.

### Where do health policy graduates work?

Graduates are prepared to assume policy analysis and advocacy roles in health care provider organizations, integrated health care delivery systems, government offices, academic institutions, health services research firms and community-based or advocacy organizations.

### Program Audiences

The MS-HP is intended for

- Students with undergraduate degrees in public policy, economics, political science, or a healthcare field
- Practicing healthcare and related administrative professionals working within all variety of healthcare settings, including hospitals, healthcare plans or management companies, academic organizations, pharmaceutical companies, community organizations, public/government entities
- Students in degree programs (e.g. MD, BSN/MSN, PhD, JD, PharmD) seeking a joint masters degree in health policy

### Program Overview

- The MS-HP degree program requires completion of 39 credits, including a capstone project.
- Courses required for the degree span the domains of health policy, research design and analytic methods, information systems and leadership skills.
- The capstone project or fieldwork experience enables students to apply concepts, methods and theories to actual problems in real settings.
- Classes are offered across three 14-week sessions per year that begin in September and end by mid-July.

- Full-time students can complete the program in 16 months. Part-time students can complete the program in 24 months.
- To accommodate working adults, classes are offered after 5:00 p.m. during the week or on weekends at the Center City campus of Thomas Jefferson University.
- Students can begin the program in September or January.

### **Program Skills**

Through coursework and field experiences, the MS-HP degree program emphasizes:

- Advanced analytic skills that support problem identification, solution modeling and outcomes prediction
- Systems approaches that consider the spectrum of stakeholder positions and market forces and lead to development of actionable policy solutions
- Essential health policy leadership and management capabilities, including communication, decision analysis, planning, and negotiation

### **Admissions Considerations and Prerequisites**

- Earned baccalaureate degree with approximate GPA of 3.0
- One of the following:
  - Competitive score on the GRE or other graduate entrance examination
  - Graduate degree or at least 9 credits of earned graduate coursework with a grade of “B” or higher
  - Current enrollment in a graduate clinical program (e.g., MD, MSN)
  - GPA of 3.3 or higher and specified coursework with grade of “B” or higher from a Jefferson-affiliated college or university
- Competency in basic statistics demonstrated by
  - At least 3 credits of undergraduate or graduate coursework with grade of “B” or higher or
  - Passing score on JSPH statistics challenge examination
- Basic knowledge of the U.S. economy and U.S. government demonstrated by
  - At least 3 credits of undergraduate or graduate coursework in macroeconomics and political science with a grade of “B” or higher or
  - Passing score on JSPH macroeconomics and/or U.S. government challenge examinations or
  - Satisfactory completion of JSPH online modules on macroeconomics and U.S. government

### **Application Requirements**

- Completion of online application form
- Payment of \$25 application fee
- Official transcripts from all graduate and undergraduate institutions attended
- Submission of TOEFL courses, if applicable
- GRE or equivalent
- Two letters of recommendation
- Personal essay

Eligible candidates will be invited for an interview.

## **MS-HP Curriculum**

### **Core Courses (36 credits)**

- U.S. Healthcare Organization and Delivery
- Population Health Management
- Health Law and Regulatory Issues
- Health Policy: Analysis and Advocacy
- Health Informatics
- Health Services Research
- Advanced Statistical Methods for Data Analysis
- Healthcare Quality and Safety Measurement and Outcomes Analysis
- Economic Analysis in Healthcare
- Managerial Accounting in Health Care
- Capstone Seminar
- Capstone Project
  
- **Elective (3 credits)**

Make a world of difference.

For more information, contact Jefferson College of Population Health at 215-503-5305 or check the MS-HP program website at [http://www.jefferson.edu/population\\_health/health\\_policy/](http://www.jefferson.edu/population_health/health_policy/)