



it's all
about

Choices...

S | H | R | P

School of Health Related Professions

**BS in Health Sciences
Advanced Imaging Sciences**



UMDNJ
UNIVERSITY OF MEDICINE &
DENTISTRY OF NEW JERSEY

Choices...

Students who choose UMDNJ's School of Health Related Professions want a University that is exclusively dedicated to health care, with state-of-the-art equipment, rigorous coursework, and faculty who care. All our resources go toward supporting a health care educational environment that attracts and nurtures the very best faculty and students.

*The SHRP Bachelor Degree Program in Advanced Imaging Sciences is a unique and flexible program designed specifically for credentialed **Diagnostic Radiologic Technologist**. The program is designed to enhance the professional development of diagnostic technologists who are registered with the American Registry of Radiologic Technologist. The program combines a strong academic curriculum and intensive clinical training provides a program that is comprehensive in its methods and capable of thoroughly training students in the advanced practices of **Computed Tomography, Magnetic Resonance Imaging, Mammography and Quality Assurance**.*

The program recognizes and builds on previous academic coursework as well as allied health professional experience to provide students with up to 80 credits, which may be applied towards the completion of their bachelor's degree.

In addition the Bachelor Degree Program provides all Interdisciplinary Health Sciences core courses via the web and a few of the Advanced Imaging Sciences courses are offered via CD.

Upon the completion of the program, the student will receive a Bachelors of Science in Health Sciences degree.

Frequently Asked Questions

What is the University of Medicine and Dentistry of New Jersey (UMDNJ)?

UMDNJ is the state university of the health sciences. There are eight schools on five campuses across New Jersey. UMDNJ is the largest university of its kind in America and is a leader in health care research, education, and patient care.

What is SHRP?

SHRP stands for the School of Health Related Professions, one of eight schools at UMDNJ. Our specialization is two-fold: (1) Preparing students for entry-level health care careers. (2) Educating health professionals for career advancement.

What types of degrees and programs does SHRP offer?

SHRP has 37 programs at all academic levels. Many programs are offered in conjunction with one or more of our twenty-eight affiliate institutions.

What other concentration areas are offered in the Bachelors of Science in Health Science program?

The BSHS program, in addition to the concentration area in Advanced Imaging Sciences, offers BSHS degrees in: Allied Dental Education, Coordinated Dietetics and Health Services Management and Education.

What roles within health care will the BSHS in Advanced Imaging Sciences prepare me to assume?

The BSHS in Advanced Imaging Sciences is designed to permit graduates to branch out into the advanced imaging modalities. Possible career avenues for graduates in the radiological sciences include positions as advanced imaging technologist in imaging facilities and hospitals, as educators, clinical coordinator and/or instructor. Additional career opportunities exist within commercial firms as product sales specialist, application specialist and educators. All career opportunities offer competitive salaries and attractive benefits.

What does it mean that SHRP has affiliations with other institutions?

Affiliations are partnerships that SHRP has formed with other higher education institutions to provide you with the best education possible. These partners are called affiliates. SHRP offers all of the health-related courses and the affiliates offer the general education, basic sciences, and liberal arts courses.

What affiliates are associated with the Program?

Thomas Edison State College and New Jersey City University (NJCU). A perspective student must select one of these affiliates when applying to SHRP. The answers to the questions below will clarify the distinctions between these affiliates to help you select one of them.

Admission/Registration

Where do I apply for admission?

UMDNJ, School of Health Related Professions, Office of Enrollment Services, 65 Bergen Street, Room 149, Newark, NJ 07107-3001 (973) 972-5454. Complete the application and select your affiliate.

Do I need licensure and college credits to enter the program?

Yes, applicants must be Diagnostic Radiographers and possess the following:

- 6 credits of college level English/Written Expression or equivalent courses with a minimum grade of “C”
- 3 credits of college level Algebra or an equivalent course with a minimum grade of “C”;
- an accumulative grade point average of 2.5 or higher in a standard 4.0 scale and
- an up-to-date New Jersey Radiologic Technology License or current registration by the American Registry of Radiologic Technologist (ARRT).

Applicants are required to submit a notarized copy of current licensure and or registry.

College credits and in some cases health care profession certificate courses will be reviewed for transfer credit into the program.

Is an interview required?

In general, you will be interviewed prior to acceptance into this program. The program Coordinator will generally conduct in-person or phone interviews before admission.

What is the application deadline?

The application and all supporting documents must be received by March 1 for the fall term and July 1 for the spring term. Supporting documents include a notarized copy of your health professional credential as well as official transcripts from all institutions in which you have earned credits.

What are the other requirements?

Since SHRP offers Web courses, you are required to be computer literate upon enrollment in the program. You must also have remote (off-campus) access to Internet services, to include at least web browsing capability and e-mail. . To obtain the most up-to-date hardware and software requirements go to the SHRP web site: http://shrp.umdj.edu/online_courses/online06_tech_support.htm

What is the admission selection process?

Selection is a competitive process that is the responsibility of the faculty. Decisions are based on a composite of the applicant's overall academic ability, including aptitude and abilities in professional and science courses; both oral and written self-expression; personal characteristics such as leadership potential; and life and work experiences including Internet experience. The school does not discriminate against qualified individuals on the basis of race, creed, national origin or disability. The University recognizes the value of diversity and is committed to providing appropriate support to its student body. The Disability Compliance Coordinator may be reached at 973-972-8594.

Where do I register?

Students who select Thomas Edison State College register for all Thomas Edison State College and SHRP courses through SHRP only. Students who choose New Jersey City University register through NJCU only for all NJCU and SHRP courses.

Who will advise me during the program?

An advisor will be assigned to you upon acceptance. You are required to schedule an appointment before each semester and are encouraged to have ongoing communication with your advisor. If you select Thomas Edison State College, you will be advised through SHRP only. If you choose New Jersey City University there is dual advisement, and you must make an appointment each semester with both your SHRP and your NJCU advisor.

Where do I take classes if I select Thomas Edison State College?

You must take all health-related courses at SHRP (15 credits of Interdisciplinary Health Science core and 24 credits in the Advanced

Imaging Science core). All Interdisciplinary Health Science core courses are offered on the Web, the Advanced Imaging concentration courses are classroom or CD based. You are required to take a minimum of 12 liberal arts or elective credits through Thomas Edison State College. Please note that although you will take these courses through Thomas Edison State College, you will register with SHRP. You may also take any remaining courses required at any accredited college near your home with prior approval of your SHRP advisor (go SHRP website at:

http://shrp.umdnj.edu/registrar/regist_09_forms.htm and click on Course Pre Approval Form.

Where do I take classes if I select New Jersey City University?

You must take all health-related courses at SHRP (15 credits of Interdisciplinary Health Science core and 24 credits in the Advanced Imaging Science core). All Interdisciplinary Health Science core courses are offered on the Web, the Advanced Imaging concentration courses are classroom or CD based. You are required to take your General Education courses on the NJCU campus in Jersey City.

Can I take course work full-time or part-time?

In general, this program is designed for individuals working within their health care discipline pursuing the BSHS on a part-time basis. You have eight years to complete the program.

The BSHS in Advanced Imaging Sciences

What degree will I receive from this program?

You will receive a joint Bachelor of Science in Health Sciences degree from SHRP and Thomas Edison State College or New Jersey City University.

How many credits will I need to graduate if I choose Thomas Edison State College?

You will need 121 credits to graduate from the program if you choose Thomas Edison State College. The total of 121 credits includes: Liberal Arts 48 credits, Specialization 24 credits, Interdisciplinary Health Sciences Core 15 credits, Concentration 25 credits, and Electives 9 credits.

How many credits will I need to graduate if I choose NJCU?

You will need a minimum of 128 credits to graduate from the program if you choose NJCU. The 128 credits includes: General Studies 36 credits, Professional Sequence 40 credits, Health Sciences 24 credits, Health Professions Transfer Credits 22 credits, and Electives 9 credits. Some of your Professional Sequence credits may also count towards the 36-credit General Studies requirement.

How do I get transfer credit?

Once you are accepted, the affiliate will complete a transfer evaluation. If you select Thomas Edison State College, you are required to pay a **\$225** non-refundable credit assessment fee when you apply. If you are not accepted, the credit assessment fee is returned. The affiliate will mail the transfer evaluation to you and your SHRP advisor. You will then meet with your advisor to develop a program plan to meet your needs and the degree requirements.

How much transfer credit will I receive?

A Thomas Edison State College student may receive a maximum of 80 credits approved by Thomas Edison State College. A New Jersey City University student may receive a maximum of 64 approved credits.

What is the typical coursework?

You are required to take the following Interdisciplinary Health Science core and Advanced Imaging Science core courses.

Core Courses (15 Credits)

- Principles of Scientific Inquiry**
- Health Care Organizations
- Cultural Issues and Health Care
- Applications of Computers in Health Care
- Legal and Ethical Dimensions of Practice in Health Care

Concentration Courses

- Advanced Patient Care
- Multiple Modality Anatomy
- Computerized Imaging

Select two of the following three sequences

Sequence 1

- Mammographic Procedures
- Mammographic Practicum
- Quality Management in Medical Imaging

Sequence 2

- (CT Physics & Imaging Equipment
- (CT Protocols & Procedures
- (CT Practicum

Sequence 3

- MR Physics & Imaging Equipment
- MR Protocols & Procedures
- MR Practicum

Course Descriptions

DXIT 3115 Multiple Modality Anatomy 3 Credits

A comprehensive study of the anatomy of the human body as viewed in sagittal, transverse and coronal planes. Emphasis is placed on the interpretation and correlation of the anatomical features demonstrated by Conventional Radiography, Computed Tomography, Interventional Radiography, and Magnetic Resonance Imaging. (Lecture hours 45).

DXIT 3120 Computerized Imaging 3 Credits

An overview of the terminology and methods of data acquisition and image processing that are applicable to the use of computers in the imaging sciences. The organization of computers, the input and output of data, and the principles of image function, display and storage are presented. (Lecture hours 30; Computer Laboratory hours 30).

DXIT 3130 Mammographic Procedures 3 Credits

This course is designed to provide radiographers with or without prior experience in Mammography with the necessary knowledge of Mammography Equipment, Technical Applications, Positioning Techniques, Interventional Procedures, Fundamentals of Image Quality, Quality Assurance/Quality Control, Breast Anatomy and Physiology (Lecture hours 45). **Prerequisites: DXIT 4100.**

DXIT 3139 Mammography Practicum**3 Credits**

This course integrates laboratory and clinical activities with classroom experience to provide radiographers with or without prior experience in Mammography with the necessary hands on knowledge of Mammography Positioning, Technique, Quality Control, and other functions of the Mammography Department (Clinical hours 135). **Prerequisites: DXIT 4100, DXIT 3115.**

DXIT 3140 Quality Management in Medical Imaging 3 Credits

This course is designed to provide technologist with the necessary knowledge to implement and document quality management programs in the general diagnostic imaging department and in the specialty areas. The impact of government regulations and JCAHO accreditation on quality management are presented (Lecture hours 45).

DXIT 4100 Advanced Patient Care**3 Credits**

An exploration of the patient care skills needed to meet the challenges of the expanding scope of practice, and the professional expectations of the imaging sciences. This course concentrates on areas of increased responsibility for the technologist such as: intravenous therapy, pharmacology, EKG, medical ethics and the legal aspects of present day radiologic science. (Lecture hours 45).

HSTC 4200 CT Physics and Imaging Equipment**3 Credits**

A study of the physical principles that govern the operation of Computed Tomography equipment. The construction and function of CT apparatus, including accessory devices such as automatic injectors, are examined. This course focuses on the general aspects of instrumentation, radiation exposure and protection, and their relationship to the quality of the image (Lecture hours 45). **Prerequisites: DXIT 4100 and DXIT 3120 and DXIT 3115.**

DXIT 4210 CT Protocols and Procedures**3 Credits**

An in-depth exploration of the positioning, scanning, and filming methods used to produce quality Computed Tomography images. Includes the methods used to display, film, and archive CT images. Emphasis is placed on the selection of scan parameters, and their relevance to image quality and radiation exposure (Lecture hours 45). **Prerequisites: DXIT 4100 and DXIT 3120 or DXIT 3115 .**

HSTC 4229 CT Practicum

3 Credits

This course intergrates laboratory and clinical activities with classroom experience to provide practice in Computed Tomography imaging procedures. Students observe and assist CT technologist in the clinical setting, and evaluate the quality of CT images (Clinical hours 135). **Prerequisites: DXIT 4100, DXIT 3120, DXIT 3115, DXIT 4210, DXIT 4200.**

DXIT 4230 MR Physics and Imaging Equipment

3 Credits

A study of the physical principles that govern the operation of Magnetic Resonance equipment. The construction and function of MRI apparatus, including accessory devices are examined. This course focuses on the general aspects of MRI equipment, instrumentation, and safety, and their relationship to the quality of the image (Lecture hours 45). **Prerequisites: DXIT 4100, and DXIT 3120 or DXIT 3115**

DXIT 4240 MR Protocols and Procedures

3 Credits

An in-depth exploration of the positioning, scanning, and filming methods used to produce quality Magnetic Resonance images. Includes the methods used to display film and archive MRI images. Emphasis is placed on the selection of scan parameters, and their relevance to image quality and safety (Lecture hours 45). **Prerequisites: DXIT 4100, DXIT 4230, DXIT 3120 and HSTC 3115**

DXIT 4259 MRI Practicum

3 Credits

This course integrates laboratory and clinical activities with classroom experience to provide practice in Magnetic Resonance Imaging procedures. Students observe and assist MRI technologist in the clinical setting and evaluate the quality of the MRI images (Clinical hours 135). **Prerequisites: DXIT 4100, DXIT 3120, DXIT 3115, DXIT 4240, DXIT 4230**

What is the practicum requirement?

The practicum is a flexible three-credit, 135 hours of clinical experience. It is designed to provide clinical experiences in Mammography, CT and or MR. The clinical coordinator, in conjunction with the student, will design the clinical rotation schedule. The clinical coordinator will oversee the student's clinical practicum.

Where does the practicum take place?

You may select University Hospital or you may choose your own site. If you choose your own site, you must advise the program director six months before beginning the practicum. Arrangements will be made to orient the preceptor (the on-site supervisor of the practicum), process an official agreement with the site, and provide needed materials.

Special Opportunities For Students

What if I want to enroll in the Master of Science Radiologist Assistant Program at SHRP when I graduate?

If you earned a “B” average or higher in the BSHS Imaging Track , you may apply to be accepted into the SHRP Master of Science Radiologist Assistant Program. Please call the Office of Enrollment Services at (973)-972-5454 for an application package.

What if I want to enroll in the Masters in Health Science Program at SHRP when I graduate?

If you earned a “B” average or higher in the SHRP BSHS Program, you may be automatically accepted to the SHRP Master of Science in Health Sciences Program.

Can I start the BSHS Imaging Track program if I have not been accepted for admission?

You can take up to 12 credits of course work at SHRP as a non-matriculated student. This does not guarantee admission into the program. To inquire about non-matriculated status, please call the Center for Advanced and Continuing Education (CACE) at 908-889-2560 or check the web site at

<http://www.umdnj.edu/ccweb/>.

Tuition/Financial Aid

How much will I pay for tuition and fees?

Students who select Thomas Edison State College pay the UMDNJ tuition rate. Students in clinical rotations or attending full time are required to pay UMDNJ for health insurance or prove that they have comparable insurance. NJCU rates are similar. Please check their web site at http://www.njcu.edu/i2e/financial_aid/default_new.asp for more information about NJCU rates.

How much will I pay for other program costs?

Books, lab coats, supplies, Internet access, and commencement fees will vary but average around \$1000 for our programs. Food and housing costs vary depending on accommodations. UMDNJ does not provide housing.

Where do I pay tuition?

Students who select Thomas Edison State College pay tuition to UMDNJ and students who choose NJCU pay tuition to New Jersey City University.

Is financial aid available?

Yes. For students paying UMDNJ, contact the Financial Aid Office at (973) 972-4376 or visit their web site at <http://www3.umdj.edu/faidweb/index.htm>. For students paying NJCU, contact the Financial Aid Office at (201) 200-3173, 3145 or visit their web site at http://www.njcu.edu/i2e/financial_aid/default_new.asp.

Mission and Program Philosophy Statements

What is the mission of UMDNJ?

The University's mission is to promote professional standards of excellence among students and health care professional by meeting the health needs of New Jersey citizens through the coordination of education, research and community service.

What is the philosophy of the BSHS Program for Health Related Professionals?

The shared goals of this program are to advance and broaden the skills of health related professionals who are prepared at the associate degree/certificate level. The program offers advanced level interdisciplinary courses, and a practicum designed to meet the diverse, flexible and professional needs of practicing health care professionals. The program offers students courses in a variety of traditional learning settings as well as distance education formats. Students are prepared to advance within their allied health profession, as well as work collaboratively with other health care professionals to promote health and help address many of the health problems of today.

To Learn More

To learn more about the **Advanced Imaging Sciences Program**, contact the Clinical Coordinator, Norman McLeod at 973-972-6504 or e-mail the program at BSIMAGPRGM@umdnj.edu You may also want to visit our web site at <http://shrp.umdnj.edu> and click on catalog and undergraduate programs.

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