Nuclear Medicine Technology, AAS
School of Health Professions

Program Description
The Nuclear Medicine Technology AAS Program trains individuals to become professionals skilled in using radioactive materials and specialized equipment to diagnose and treat diseases. The program prepares students for a career as a nuclear medicine technologist, focusing on the safe handling of radioactive substances, operating advanced imaging equipment, and working closely with patients and healthcare teams.

Career Opportunities
Graduates of a Nuclear Medicine Technology Program typically find roles in Hospitals, Diagnostic imaging centers, Research institutions, and Outpatient care facilities. The programs equip students with the technical, medical, and interpersonal skills needed to succeed in a high-demand healthcare field.

Program Learning Outcomes
Upon successful completion of this program, students will be able to:

1. Foundational Knowledge:
    - Understand the principles of nuclear physics, radiation, and radiopharmaceutical chemistry.
    - Explain human anatomy, physiology, and pathology as they relate to nuclear medicine procedures.
    - Understand the biological effects of radiation on human tissue.

2. Technical Proficiency:
    - Operate and maintain nuclear medicine equipment, including gamma cameras, PET/CT scanners, and dose calibrators.
    - Accurately prepare, handle, and administer radiopharmaceuticals.
    - Perform imaging and non-imaging procedures, such as PET scans, SPECT scans, and organ function tests.

3. Safety and Compliance:
    - Apply radiation safety principles to protect patients, staff, and the public from unnecessary exposure.
    - Comply with federal, state, and institutional regulations regarding the use of radioactive materials.
    - Safely manage the storage and disposal of radioactive substances.

4. Patient Care and Communication:
    - Provide compassionate and culturally competent care to diverse patient populations.
    - Communicate effectively with patients to explain procedures, address concerns, and ensure cooperation.
    - Monitor patients for adverse reactions and respond appropriately to emergencies.

5. Analytical and Problem-Solving Skills:
    - Evaluate diagnostic images and data for quality and accuracy.
    - Collaborate with healthcare teams to analyze results and contribute to patient diagnoses and treatment plans.
    - Troubleshoot technical issues with equipment and procedures.

6. Professionalism and Ethics:
    - Demonstrate ethical decision-making and maintain patient confidentiality.
    - Exhibit professionalism in interactions with patients, colleagues, and other healthcare professionals.
    - Commit to lifelong learning and staying current with advancements in nuclear medicine technology.

7. Clinical Competence:
    - Perform clinical procedures independently under supervision during internships or practicums.
    - Document patient and procedure data accurately and efficiently.
    - Adhere to best practices and protocols to ensure high-quality outcomes.

8. Certification and Career Readiness
    - Prepare for national certification exams such as the NMTCB (Nuclear Medicine Technology Certification Board) or ARRT (American Registry of Radiologic Technologists).
    - Develop the skills necessary for employment in hospitals, diagnostic imaging centers, or research facilities.

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Sugg. Term	Seq #	Course ID	Course Title	Cr.	Prereq/Coreq(Co)	Options Available
Prior to Program Start	1	BIO 171	Anatomy and Physiology I	4	CHM 107, CHM 150/151, CHM 225 or HS Chemistry & ENG 095 or Placement	
1st Fall	2	NMT 100	Introduction to Nuclear Medicine	1	Acceptance into Program, BIO 171 with a "C" or Better	
	3	ALH 122	Medical Terminology	3		
	4	BIO 172	Anatomy and Physiology II	4	BIO 171 with a "C" grade or better	
	5	NMT 102	Applied Nuclear Medicine - PET Technology I	4	Admission to Program, BIO 171 with a "C" or Better	
	6	NMT 104	Nuclear Medicine - PET Instrumentation I	3	Admission to Program	
1st Spring	7	NMT 150	Nuclear Medicine - PET Physics	3	NMT 100, HS Physics with a "C" or Better, or PHY 107 with a "C" or Better, or PHY 110 with a "C" or Better	
	8	MTH 157	College Algebra	3		
	9	NMT 154	Nuclear Medicine - PET Instrumentation II	3	NMT 104	
	10	NMT 152	Applied Nuclear Medicine - PET Technology II	4	NMT 102; Co: NMT 150	
	11	NMT 165	Clinical Nuclear Medicine Education I	4	NMT 152	
1st Summer	12	NMT 175	Clinical Nuclear Medicine Education II	3	NMT 165	
	13	NMT 185	Clinical Nuclear Medicine Education III	3	NMT 175	
2nd Fall	14	CPT 150	Microcomputer Concepts	3		
	15	ENG 161	College Writing	3	ENG 085 or Placement	
	16	PSY 160	General Psychology	3		
	17	NMT 202	Applied Nuclear Medicine - PET Technology III	4	NMT 152	
	18	NMT 215	Clinical Nuclear Medicine Education IV	4	NMT 185	
2nd Spring	19	PHL 203	Biomedical Ethics	3		
	20	RAD 221	Radiographic Pathology	3		
	21	NMT 265	Clinical Nuclear Medicine Education V	5	NMT 215	
	22	RAD 231	Nuclear Medicine Technology - PET Capstone	1		
	23	SPC 156	Interpersonal Communication	3		
Minimum Program Credits				74		NMT