

# BIOLOGY, B.S. - NUCLEAR MEDICINE TECHNOLOGY OPTION

To earn a B.S. in Biology with the Nuclear Medicine Technology Option, students must complete three years of study at Millersville, then apply for admission to Lancaster Institute for Health Education for one year's training at a regional hospital. After completing the degree, students are prepared to take a national examination which, if passed, grants board certification in nuclear medicine technology.

## Affiliated Faculty:

**Bakel, Joanne;** Clinical Coordinator-Radiologic Science Program  
Penn State University

**Baranowski, Jarrod;** Clinical Supervisor  
B.S., Millersville University, 2000; CNMT, 2000; Lancaster General Hospital Noninvasive Cardiology

**Crincoli, Jonathan;** CNMT, NMTCB(CT), PET  
Fern Hill Medical Campus

**Dreach, Heath Tanner;** PharmD  
Cardinal Health

**Glenn, Jaime;** Clinical Supervisor, Meritus Medical Center/Diagnostic Imaging Services  
A.S., Hagerstown Community College; ARRT(R), 2003; Pennsylvania College of Health Sciences, CNMT, 2004

**Greth, Madeline;** Program Director, Nuclear Medicine Program,  
Pennsylvania College of Health Sciences  
B.S., Millersville University, 2012; CNMT, 2012, RT(CT), 2015, PET, 2018, NCT, 2020

**Grove Shaffer, Jennifer;** Clinical Instructor–Nuclear Medicine, Hershey Medical Center  
B.S., York College of Pennsylvania/Lancaster Institute of Health Education, CNMT, 1998

**Hansell, Amanda;** Clinical Supervisor, WellSpan Good Samaritan Hospital  
B.S., Pennsylvania College of Health Sciences; CNMT, 2010

**Havanas, Olga;** Clinical Supervisor, Wellspan York Hospital  
B.A., York College/Lancaster General College of Health Sciences, 2018; CNMT, 2018

**Hoffert, Kathleen,** CNMT, RT(N)  
B.S., Cedar Crest College; ARRT(N), 1986; CNMT, 1986

**Ingstad, Scott,** PharmD, BCNP, Pharmacy Manager  
Cardinal Health

**Kelkis, David;** Program Director, Nuclear Medicine Technology, The Johns Hopkins Hospital Schools of Medical Imaging  
BS, CNMT, NMTCB(CT), RT(N)(CT), B.S. University of Scranton, 2022, Hopkins' Schools of Medical Imaging, 2015,

**Lazarus, Monica,** CNMT, RT(N), Network Manager, Nuclear Medicine  
St. Luke's University Health Network

**Mancini, Paula;** Adjunct Faculty, Nuclear Medicine Technology Program, Pennsylvania College of Health Sciences  
B.S., Millersville University; M.H.A., The Pennsylvania State University, 2002; ARRT(N), 1987; CNMT, 1987.

**Meley, Jessica;** Clinical Supervisor, Hershey Medical Center  
B.S., Millersville University/Lancaster General College of Health Sciences, 2004; CNMT, 2004,

**Miles, Constance E.;** Clinical Supervisor, Penn Medicine/Lancaster General Hospital  
B.S., Millersville University, 1994; CNMT, 1994.

**Poulton, Bethany;** Clinical Supervisor, Penn Medicine Chester County Hospital  
B.S., Thomas Jefferson University, 2004; CNMT, 2004,

**Satre, Susan;** Clinical Supervisor, St. Luke's Health Network  
B.S., Lyndon University, 1984; CNMT, 1995, RT(N), 1995, PET, 2004,

**Shaffer, Jennifer;** Clinical Instructor–Nuclear Medicine, WellSpan York Hospital  
B.S., York College of Pennsylvania/Lancaster Institute of Health Education, CNMT, 1998;

**Villanti, Alison;** CNMT, RT (N) (CT), MHA  
Fern Hill Medical Campus

## Major in Biology, BS

Code	Title	Hours
CORE COURSES (C- or higher required)		16
Foundations of Biology - See Appendix 1		
BIOL 211	Concepts of Zoology	
BIOL 362	Cell and Developmental Biology	
BIOL 364	Foundations of Genetics & Molecular Biology	
Option in Nuclear Medical Technology - See separate block		
<b>Total Hours</b>		<b>16</b>

## Appendix 1. Foundations of Biology

Code	Title	Hours
Foundations of Biology C- or Higher		4
BIOL 101	Foundations of Biology	

## Concentration in Nuclear Medical Technology

Code	Title	Hours
REQUIRED NUCLEAR MEDICAL TECH COURSES		9
BIOL 257	Introduction to Allied Health Professions	
BIOL 356	Functional Human Anatomy	
BIOL 375	Biometry	
ELECTIVES FOR NUCLEAR MEDICAL TECH (NOT REQUIRED)		0
CLINICAL LAB SCIENCE EDUCATION		28
Upon completion of one year at the Lancaster General Hospital College of Nursing and Allied Health 28 credits will be applied here.		
<b>Total Hours</b>		<b>37</b>

**Req Related for Biology, BS**

Code	Title	Hours
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For Biology Majors the G2 block of the Liberal Arts Core will be fulfilled by your required related coursework.

**CHEMISTRY**

A C- or higher in CHEM 111 and 112 is a pre-requisite for CHEM 235.

A C- or higher in CHEM 231 is a pre-requisite for CHEM 232. Students interested in graduate or professional school should take CHEM 231 and 232.

CHEM 111	Introductory Chemistry 1	4
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CHEM 112	Introductory Chemistry 2	4
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Organic Chemistry - Choose 1 of the following options 1-2:		4-8
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Option 1. Organic Chemistry I and II

CHEM 231	Organic Chemistry 1
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CHEM 232	Organic Chemistry 2
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Option 2. Short Course in Organic Chemistry

CHEM 235	Organic Chemistry
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CHEM 326	Biochemistry 1	4
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**MATHEMATICS FOR MEDICAL TECH OR NUCLEAR MED**

Some clinical sites require a course in statistics such as MATH 130, MATH 235, or BIOL 375. Students interested in graduate or professional school should take MATH 161.

Precalculus, Calculus I or Honors Calculus - Choose 1 of the following:		4-5
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MATH 160	Precalculus
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MATH 161	Calculus 1
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MATH 163H	Honors Calculus 1
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**PHYSICS**

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Option 1. Physics with Algebra

PHYS 131	Physics 1 with Algebra
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PHYS 132	Physics 2 with Algebra
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Option 2. Physics with Calculus

PHYS 231	Physics 1 with Calculus
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PHYS 232	Physics 2 with Calculus
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<b>Total Hours</b>		<b>28-35</b>
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