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

Havanaas, 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

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

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BIOL</td>
<td>Foundations of Biology - See Appendix 1</td>
<td>4</td>
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<tr>
<td>BIOL 211</td>
<td>Concepts of Zoology</td>
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<tr>
<td>BIOL 362</td>
<td>Cell and Developmental Biology</td>
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<tr>
<td>BIOL 364</td>
<td>Foundations of Genetics &amp; Molecular Biology</td>
<td></td>
</tr>
<tr>
<td>BIOL 101</td>
<td>Foundations of Biology</td>
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Total Hours 16

Appendix 1. Foundations of Biology

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<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>BIOL 101</td>
<td>Foundations of Biology</td>
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Concentration in Nuclear Medical Technology

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<tr>
<th>Code</th>
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<tbody>
<tr>
<td>BIOL 257</td>
<td>Introduction to Allied Health Professions</td>
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<tr>
<td>BIOL 356</td>
<td>Functional Human Anatomy</td>
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<tr>
<td>BIOL 375</td>
<td>Biometry</td>
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<tr>
<td>BIOL 101</td>
<td>Foundations of Biology</td>
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</table>

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.

Total Hours 37
## Req Related for Biology, BS

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.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CHEM 111</td>
<td>Introductory Chemistry 1</td>
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<tr>
<td>CHEM 112</td>
<td>Introductory Chemistry 2</td>
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**Organic Chemistry - Choose 1 of the following options 1-2:** 4-8

- **Option 1.** Organic Chemistry I and II
  - CHEM 231 Organic Chemistry 1
  - CHEM 232 Organic Chemistry 2

- **Option 2.** Short Course in Organic Chemistry
  - CHEM 235 Organic Chemistry

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 326</td>
<td>Biochemistry 1</td>
<td>4</td>
</tr>
</tbody>
</table>

### 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

- MATH 160 Precalculus
- MATH 161 Calculus 1
- MATH 163H Honors Calculus 1

### PHYSICS

**Undefined - Choose 1 of the following options 1-2:** 8-10

- **Option 1.** Physics with Algebra
  - PHYS 131 Physics 1 with Algebra
  - PHYS 132 Physics 2 with Algebra

- **Option 2.** Physics with Calculus
  - PHYS 231 Physics 1 with Calculus
  - PHYS 232 Physics 2 with Calculus

### Total Hours

28-35