ALLIED HEALTH TECHNOLOGY, B.S. - NUCLEAR MEDICINE TECHNOLOGY 3+1 YEAR OPTION

The Nuclear Medicine Technology option within Millersville University’s Allied Health major prepares students to become nuclear medicine technologists (NMTs), healthcare professionals who are trained to safely prepare and administer small doses of radioactive compounds (radiopharmaceuticals) to patients to help detect diseases, injuries or abnormalities. The NMT uses sophisticated radiation-detecting diagnostic equipment to create images of virtually every organ in the body, study body functions (stress test), analyze biological specimens and treat disease (certain cancers).

This 3 + 1 program gives students the benefit of learning in the classroom and in the hospital. At Millersville, courses focus on general education, math and science requirements. The clinical programs provide classroom, laboratory and patient experiences under the supervision of medical instructors. For MU students interning at local hospitals, University housing is available.

Major in Allied Health Tech-Nuclear Med Tech, BS

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 257</td>
<td>Introduction to Allied Health Professions</td>
<td>1</td>
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</table>

**BIOLOGY FOUNDATIONS**

General Biology with B- or higher

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BIOL 100</td>
<td>General Biology</td>
<td>3</td>
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</table>

**REQUIRED BIOLOGY COURSES**

Human Anatomy & Physiology I

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 254</td>
<td>Human Anatomy &amp; Physiology I</td>
<td>4</td>
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</table>

Human Anatomy & Physiology II

<table>
<thead>
<tr>
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<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>BIOL 255</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>4</td>
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</table>

Cell and Developmental Biology

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>BIOL 362</td>
<td>Cell and Developmental Biology</td>
<td>4</td>
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</table>

Foundations of Genetics & Molecular Biology

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 364</td>
<td>Foundations of Genetics &amp; Molecular Biology</td>
<td>4</td>
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</tbody>
</table>

Immunology

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>BIOL 454</td>
<td>Immunology</td>
<td>3</td>
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</table>

Microbiology

<table>
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<tr>
<th>Code</th>
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<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>BIOL 361</td>
<td>Microbiology</td>
<td>4</td>
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</table>

**Directed Electives**

undefined - Choose 2 of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 211</td>
<td>Concepts of Zoology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 352</td>
<td>Nutritional Science</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 363</td>
<td>Medical Microbiology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 437</td>
<td>Endocrinology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 438</td>
<td>Neurobiology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 455</td>
<td>Cardiopulmonary Physiology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 462</td>
<td>Molecular Biology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 463</td>
<td>Virology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 465</td>
<td>Developmental Biology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 467</td>
<td>Human Genetics:Analysis/Apps</td>
<td>1</td>
</tr>
<tr>
<td>RESP 422</td>
<td>Pharmacology</td>
<td>1</td>
</tr>
</tbody>
</table>

**Nuclear Med Clinical Coursework**

26 credits in Clinical Education at Lancaster General Hospital College

Total Hours 58-61

**Req Related for Allied Hlth Tech-Nuclear Med, BS**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 111</td>
<td>Introductory Chemistry 1</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 112</td>
<td>Introductory Chemistry 2</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 326</td>
<td>Biochemistry 1</td>
<td>4</td>
</tr>
</tbody>
</table>

**ORGANIC CHEMISTRY - Choose 1 of the following:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 231</td>
<td>Organic Chemistry 1</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 232</td>
<td>Organic Chemistry 2</td>
<td>4</td>
</tr>
</tbody>
</table>

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 planning to attend graduate school or pursue programs in medical, dental, veterinary, pharmacy, physical therapy or physician assistant after their clinical training should take CHEM 231 and 232 for this requirement.

**Short Course in Organic Chemistry - See Appendix 1**

**Organic Chemistry I and Organic Chemistry II - See Appendix 2**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 130</td>
<td>Elements of Statistics 1</td>
<td>3</td>
</tr>
</tbody>
</table>

**Appendix 1. Short Course in Organic Chemistry**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 235</td>
<td>Organic Chemistry</td>
<td>4</td>
</tr>
</tbody>
</table>

**Appendix 2. Organic Chemistry I and Organic Chemistry II**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 231</td>
<td>Organic Chemistry 1</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 232</td>
<td>Organic Chemistry 2</td>
<td>4</td>
</tr>
</tbody>
</table>

Students interested in attending graduate or professional school should also take PHYS 131 and 132.

**Total Hours**

27-31

**Appendix 1. Short Course in Organic Chemistry**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 235</td>
<td>Organic Chemistry</td>
<td>4</td>
</tr>
</tbody>
</table>

**Appendix 2. Organic Chemistry I and Organic Chemistry II**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 231</td>
<td>Organic Chemistry 1</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 232</td>
<td>Organic Chemistry 2</td>
<td>4</td>
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</tbody>
</table>

Students interested in attending graduate or professional school should also take PHYS 132.

**Total Hours**

27-31

26 credits in Clinical Education at Lancaster General Hospital College

**Total Hours**

58-61