

BIOLOGY, B.S. - RESPIRATORY THERAPY OPTION

The Respiratory Therapy program consists of three years study as a Biology/Respiratory Therapy major or two years study as an Allied Health Technology/Respiratory Therapy major at Millersville followed by a 19-month clinical training phase cosponsored by a regional hospital. At the end of their studies students are awarded the BS in Biology, Respiratory Therapy option or Allied Health Technology, Respiratory Therapy option. They are eligible to sit for the entry-level national certification examination, and when that is passed, the Clinical Simulation Exam. Persons already holding baccalaureate degrees may apply for admission into the clinical phase of the program as certification students.

Affiliated Faculty:

Ahmad, Masood; Medical Director

M.D., F.Sc., Pre-Medicine, Government College, Gujranwala, Pakistan, 1989; M.B., B.S., Nishtar Medical College, Multan, Pakistan, 1996. Board Certifications: Internal Medicine, 2004; Critical Care Medicine, 2007; Pulmonary Disease, 2010; Sleep Medicine, 2011

Chrissos, Elaine; Program Director

B.S.Ed., Millersville University, 1980; Millersville University Program in Respiratory Therapy, 1988; RRT, 1989, MS Northeastern University, 2022

Harleman, Jarrod; Director of Clinical Education

B.S., Millersville University Program in Respiratory Therapy, 2010; M.S., Misericordia University, 2016; RRT, 2011. Neonatal- Pediatric Specialist, 2011

Major in Biology, BS

Code	Title	Hours
CORE COURSES (C- or higher required)		12
	Foundations of Biology - See Appendix 1	
BIOL 362	Cell and Developmental Biology	
BIOL 364	Foundations of Genetics & Molecular Biology	
Option in Respiratory Therapy - See separate block		
Total Hours		12

Appendix 1. Foundations of Biology

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

Concentration in Respiratory Therapy

Code	Title	Hours
REQUIRED RESPIRATORY THERAPY COURSES		
BIOL 257	Introduction to Allied Health Professions	1
BIOL 254	Human Anatomy & Physiology I (C- minimum)	4
BIOL 255	Human Anatomy & Physiology II (C- minimum)	4
BIOL 361	Microbiology (C- minimum)	4
RESPIRATORY THERAPY PROFESSIONAL PHASE I		
Student must complete the Phase II coursework in order to be employed and certified as a respiratory therapist.		
RESP 410	Acute Cardiopulmonary Care	2
RESP 411	Respiratory Care Techniques 1	2

RESP 412	Principles of Aerosol & Gas Therapy	3
RESP 413	Respiratory Assessment & Therapeutics	4
RESP 414	Respiratory Care Techniques 2	3
RESP 419	Respiratory Care in Alternate Sites	2
RESP 420	Arterial Blood Gas Analysis	3
RESP 421	Physiology of Mechanical Ventilation	2
RESP 422	Pharmacology	2
RESP 423	Infectious Diseases	2
RESP 424	Non-Infectious Diseases	2
RESP 425	Neonatology for the Respiratory Therapist	2
RESP 460	Clinical Practice 1	1
RESP 461	Clinical Practicum 1	2

RESPIRATORY THERAPY PROFESSIONAL PHASE II

Following completion of Phase II coursework, the student will receive a respiratory therapy certificate, which will permit them to seek employment as a respiratory therapist and qualifies them to take the certification exam.

RESP 415	Technical Aspects of Mechanical Ventilation	3
RESP 417	Respiratory Care Techniques 3	3
RESP 462	Clinical Practice 2	1
RESP 463	Clinical Practicum 2	3
RESP 464	Clinical Practicum 3	10
RESP 495	Respiratory Care Research	2

Total Hours **67**

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
CHEM 112	Introductory Chemistry 2	4
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	
CHEM 326	Biochemistry 1	4

MATHEMATICS FOR PRE-ATHL, RESP THER, OR PPOD

Calculus I or Honors Calculus - Choose 1 of the following:		4-5
MATH 161	Calculus 1	
MATH 163H	Honors Calculus 1	

PHYSICS

Students who might be interested in attending graduate or professional school after completing their professional phase should also take PHYS 132 or 232.

Physics 1 with Algebra or Calculus (C- minimum) - Choose 1 of the following:

PHYS 131	Physics 1 with Algebra	
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PHYS 231	Physics 1 with Calculus
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Total Hours	24-30