

Comparison between BS Biology and BS Allied Health Technologies Degrees

Millersville University has traditionally offered three collaborative, university-hospital based degree programs. Each of these programs is designated as a 3/1 program in which students attend Millersville University for three years and then complete a one-year clinical program at an affiliated hospital. At the completion of the clinical phase of the program, the student is awarded a B.S. degree in Biology with an option in Medical Technology, Nuclear Medicine Technology, or Respiratory Therapy. Because the programs are all options within a biology degree program and include core courses required of all biology majors, the curriculum is rather rigid. There has been little opportunity to use courses that would better serve students who have chosen to prepare for a health care profession and stay within the 120-credit graduation limit. For example, our students are not required to take any courses that focus on the patient during the first three years at the university and generally do not take a biomedical related course until their junior year.

A new degree program that began in Fall 2009 awards a Bachelor of Science Degree in Allied Health Technologies. The restructuring of the curriculum creates a new degree that reduces some of the traditional Biology degree requirements, provides the flexibility to add important new courses, and allows the students to enroll in courses with a medical focus earlier in their academic career at Millersville University. Students will begin biomedical science courses in their freshman year. This new B.S. Allied Health Technologies degree program

This new B.S. Allied Health Technologies degree program will continue to meet all of the rigorous requirements needed to obtain certification in the health care professions but will provide a sharper focus on health care than does the B.S. Biology course of study that requires a broad base in the science of biology. The new degree is more likely to attract students whose interest's center on one of the health care professions. Many students who are interested in pursuit of a career in Allied Medical fields are more interested in the clinical aspects of those fields than in their biological underpinnings. The proposed B.S. in Allied Health Technology will still give these students a firm background in biology, chemistry, math, and physics while exposing them sooner and in greater depth to the courses that interest them most. This will afford students a greater opportunity for success and prepare them better for the careers to which they aspire.

The department also recognizes that some students will want to have an even stronger background in biology, math, and physics before they begin the clinical phase of their undergraduate education; therefore, it will keep its BS degree in Biology with options in Respiratory Therapy, Nuclear Medicine Technology, and Medical Technology for these students. This degree program is recommended for students who might be considering going to a graduate or professional school following completion of their clinical training.

MAJOR SEQUENCE AND DEGREE REQUIREMENTS
BS BIOL and BS ALHT Pre-Athletic Training
Side by Side Comparison

Major: **BS BIOLOGY**

Option: **Pre-Athletic Training**

Major Field Requirements: **83 credits**

Other Requirements: **28-30 credits**

REQUIRED BIOLOGY COURSES (12 credits)

BIOL 101	Foundations of Biology	4.0
BIOL 211	Concepts of Zoology	4.0
BIOL 362	Cell & Development Biol.	4.0

REQUIRED PATHL COURSES (14 credits)

BIOL 254	Human A & P I	4.0
BIOL 255	Human A & P II	4.0
BIOL 352	Nutritional Science	3.0
BIOL 375	Biometry	3.0

CLINICAL EDUCATION (57 credits)

Millersville University

Wellness & Sport Sciences Courses (18 credits)

West Chester University Courses (15 credits)

WCU Videoconferencing Courses (24 credits)

REQUIRED RELATED (28.0-30.0 credits)

Chemistry (16 credits)

CHEM 111	Intro to Chemistry I	4.0
CHEM 112	Intro to Chemistry II	4.0
CHEM 235	Organic Chemistry	4.0
CHEM 326	Biochemistry	4.0

Mathematics (4-5 credits)

Math 161	Calculus	4.0
or 163	Calculus w/ Honors	5.0

Physics (8-10 credits)

PHYS 131	Phys I w/Algebra	4.0
PHYS 132	Phys II w/Algebra	4.0
	----- or -----	
PHYS 231 & 232	Phys I&II w/Calculus	5.0

PSYC 100 General Psychology 3.0

Major: **BS ALLIED HEALTH TECHNOLOGIES**

Option: Pre-Athletic Training

Major Field Requirements: **86 credits**

Other Requirements: **30 credits**

REQUIRED BIOLOGY COURSES (28 credits)

BIOL 100	General Biology	3.0
BIOL 254	Human A&P 1	4.0
BIOL 255	Human A&P 2	4.0
BIOL 257	Intro to Allied Health	1.0
BIOL 362	Cell & Development Biol.	4.0
BIOL 352	Nutritional Science	3.0
BIOL 364	Genetics & Molec. Biol.	4.0
BIOL 454	Immunology	2.0
BIOL 461	General Microbiology	3.0

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REQUIRED RELATED (28.0-30.0 credits)

Chemistry (16 credits)

CHEM 111	Intro to Chemistry I	4.0
CHEM 112	Intro to Chemistry II	4.0
CHEM 235	Organic Chemistry	4.0
CHEM 326	Biochemistry	4.0

Mathematics (7 credits)

MATH 130	Statistics	3.0
MATH 160	Precalculus	4.0

Physics (4 credits) - Phys I w/Algebra

General Education Course (G3)

PSYC 100 General Psychology 3.0