

# APPLIED HEALTH SCIENCES MAJOR (BS)

Department website (<https://www.uwp.edu/learn/programs/appliedhealthsciences.cfm>)

College: College of Natural & Health Sciences

The bachelor of science in applied health sciences, housed in the Center for Health Sciences (CHS), is designed to prepare students with an interdisciplinary and liberal arts foundation for professional careers within the health care systems through a combination of academic coursework and clinical experiences through pre-approved Internships. This major is intended primarily for qualified students who wish to pursue advanced degrees and/or careers in the professional fields of physical therapy, occupational therapy, chiropractic, physician assistant, athletic training kinesiology, public health, and medical laboratory sciences (<https://www.uwp.edu/learn/programs/appliedhealthsciencesmedicallab.cfm>). In addition to completing the academic course work and clinical experiences, students must earn a cumulative GPA of 2.5 to graduate with the AHS major.

## Medical Laboratory Science Concentration

The concentration in medical laboratory sciences (MLS) (<https://www.uwp.edu/learn/programs/appliedhealthsciencesmedicallab.cfm>) provides a rigorous curriculum that prepares students for a career as a medical laboratory scientist (MLS) or lab manager. While the majority of MLS students will find employment in a hospital lab or in a clinical reference lab, this degree will also prepare students for advanced degrees in healthcare and health sciences.

## Career Possibilities:

The applied health sciences curriculum provides students with the appropriate classes and experiences that will allow them to meet the requirements necessary to qualify for professional health programs outlined as options within the concentrations offered in the major. While the majority of graduating students are expected to pursue advanced degrees in health care and health sciences, students completing this degree will also be competitive for entry level careers in general health sciences, scientific/medical research, and fitness/health promotion.

## Medical Laboratory Science Concentration

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## Program Learning Outcomes

1. To provide UW-Parkside students with a rigorous health sciences degree that will allow them to gain admission into professional/graduate health programs.
2. To provide UW-Parkside students with a rigorous health sciences degree that will allow them to be competitive and successful in entry-level health science careers.

## Program-Specific Policies

The applied health sciences program requires that students gain experiences (6 credits – equivalent to 300 hours of healthcare experience) relevant to their respective concentrations to complete their degree. However, students who wish to be competitive in gaining acceptance into professional programs are strongly encouraged to gain additional program-specific health care experiences.

The AHS 494 Internship/Fieldwork in Applied Health Sciences course provides students with learning experiences within professional fields that are related to their professional career goals. These supervised experiences will require the student to gain exposure to all professional aspects of their chosen careers including, but not limited to: business operations, professional competencies and conduct, and overall work environment. Placement approval by AHS academic advisor or the CHS director is required. Students of sophomore standing or higher may register for this class multiple times in multiple semesters. One (1) credit equals fifty (50) hours of experience. Students must complete a total of six (6) credits (300 hours) for completion of the major requirement. Additionally, no more than twelve (12) credits may be applied toward general graduation requirements.

## Articulation Agreements

### St. Scholastica

Students who choose the pre-athletic training concentration within the AHS major are eligible to qualify for an articulation agreement with the master's degree athletic training program at St. Scholastica University in Minnesota. The top two students graduating with the pre-athletic training concentration are eligible for this program. For more information, interested students should contact their AHS advisor.

### Gateway Technical College

Students can participate in an articulation agreement between the physical therapy assistant program at Gateway Technical College and the pre-athletic training and/or pre-physical therapy concentrations within the applied health sciences major. This program is a dual enrollment program where the students take classes at both Gateway Technical College and UW-Parkside during the first year of the program, finish their associates degree in physical therapy assistant at Gateway Technical College during their second year, then transfer seamlessly to UW-Parkside and finish their bachelor of science degree with a major in applied health sciences with either a concentration in pre-athletic training and/or pre-physical therapy. For more information, interested students should contact their AHS advisor.

## Requirements for the Applied Health Sciences Major

In addition to completing the academic course work, students must earn a cumulative GPA of 2.5 to graduate with the AHS major.

The major in applied health sciences has a core requirement of 49-50 credits from a variety of departments relevant for pursuing careers in the various concentrations within the major. Within the major, a minimum of 15 credits in courses numbered 300 or above must be completed at UW-Parkside. Students also must be aware of and satisfy UW-Parkside's requirements for graduation in addition to the requirements for the applied health sciences major. Students who complete the AHS major may also qualify for a minor in Biological Sciences and/or a minor in Exercise Science. Please see your advisor for more information on this.

Code	Title	Credits
<b>College of Natural and Health Sciences requirement</b>		
New entering students, and transfer students with less than 30 college credits, choosing a major in the College of Natural and Health Sciences are required to take this course.		
UWP 101	First Year Seminar: Natural and Health Sciences	1
<b>Core Courses</b>		
<i>Applied Health Science Courses</i>		
AHS 101	Introduction to Applied Health Sciences	3
AHS 494	Internship/Fieldwork <sup>1</sup>	6
<i>Biological Sciences Courses</i>		
BIOS 101	Bioscience <sup>2</sup>	4
BIOS 105	Human Physiology and Anatomy I <sup>3</sup>	5
BIOS 106	Human Physiology and Anatomy II <sup>3</sup>	5
<i>Chemistry Courses</i>		
CHEM 101	General Chemistry I <sup>2</sup>	4
CHEM 103	General Chemistry Lab I	1
<i>Mathematics Courses</i>		
MATH 111	College Algebra I	5
Select one of the following:		5-6
MATH 114	College Algebra II/Trigonometry	
MATH 112	College Algebra II	
MATH 113	and Trigonometry	
<i>Health, Kinesiology and Sport Management</i>		
HLTH 270	Lifetime Wellness	3
HLTH 280	Nutrition for Wellness	3
<i>Psychology</i>		
PSYC 101	Introduction to Psychological Science	3
<i>Statistics</i>		
BIOS 210	Biostatistics	3-4
	or PSYC 250 Psychological Statistics	
Core Courses Subtotal		51-53
<b>Concentration Options</b>		
Choose one option		19-59
<b>Total Credits</b>		<b>70-112</b>

<sup>1</sup> Additionally, students can gain these credits through either pre-approved BIOS 494 Internship or KSP 498 Fieldwork in Kinesiology and Sport Performance.

<sup>2</sup> These courses also satisfy general education requirements at UW-Parkside.

<sup>3</sup> Students may substitute BIOS 300 Human Functional Anatomy/BIOS 341 Mammalian Physiology/BIOS 342 Mammalian Physiology Laboratory or BIOS 300 Human Functional Anatomy/BIOS 341 Mammalian Physiology for BIOS 105 Human Physiology and Anatomy I/BIOS 106 Human Physiology and Anatomy II sequence.

In addition to satisfying the core requirements within the applied health sciences major, students must choose and complete a concentration based on their area of interest and continuing education. In order to obtain a concentration, students must complete all the following required course work in addition to the above stated core courses. The courses outlined in the concentrations will satisfy most of the academic requirements necessary to gain acceptance into the relevant professional

programs. However, students should work closely with their applied health sciences advisor to stay abreast of any changes that occur within these requirements as they can fluctuate during any application cycle. Ultimately, it is the students' responsibility to ensure that they have satisfied the academic requirements for the specific schools and programs to which they wish to apply.

## Concentration Options

Medical Laboratory Sciences (<https://www.uwp.edu/learn/programs/appliedhealthsciencesmedicallab.cfm>)

Code	Title	Credits
<b>Required Courses</b>		
AHS 300	Introduction to Medical Laboratory Sciences	3
AHS 310	Clinical Microbiology I	2
AHS 311	Clinical Microbiology II	3
AHS 320	Clinical Immunology I	3
AHS 321	Clinical Immunology II	2
AHS/CHEM 335	Clinical Chemistry I	3
AHS/CHEM 336	Clinical Chemistry II	3
AHS 340	Hematology and Hemostasis I	3
AHS 341	Hematology and Hemostasis II	2
AHS 350	Diagnostic Molecular Biology	3
AHS 400	Immunohematology I	2
AHS 401	Immunohematology II <sup>1</sup>	2
AHS 405	Cellular Morphology Laboratory <sup>1</sup>	2
AHS 406	Clinical Fluid Analysis <sup>1</sup>	2
AHS 410	Clinical Mycology, Parasitology, and Virology	3
AHS 420	Laboratory Operations	2
AHS 450	Clinical Correlations and Board of Review Test Preparation	2
AHS 495	Clinical Practicum I	2
AHS 496	Clinical Practicum II	2
BIOS 102	Organismal Biology	4
BIOS 260	General Genetics	4
CHEM 102	General Chemistry II <sup>2</sup>	4
CHEM 104	General Chemistry Lab II <sup>2</sup>	1
<b>Total Credits</b>		<b>59</b>

<sup>1</sup> These three (3) courses will satisfy the AHS 494 Internship/Fieldwork requirement within the AHS major.

<sup>2</sup> Students completing this concentration may substitute CHEM 115 Chemical Science/CHEM 215 Organic and Biochemistry for CHEM 101 General Chemistry I/CHEM 103 General Chemistry Lab I and CHEM 102 General Chemistry II/CHEM 104 General Chemistry Lab II.

## Pre-Athletic Training

Code	Title	Credits
<b>Required Courses</b>		
KSP 330	Sport and Exercise Biomechanics	4
KSP 340	Sport and Exercise Physiology	4
KSP 345	Prevention and Care of Athletic Injuries	3
KSP 410	Fitness Assessment and Exercise Prescription	3

PHYS 105	College Physics I	5
<b>Total Credits</b>		<b>19</b>

**Pre-Chiropractic**

Code	Title	Credits
<b>Required Courses</b>		
BIOS 102	Organismal Biology	4
CHEM 102	General Chemistry II	4
CHEM 104	General Chemistry Lab II	1
CHEM 321	Organic Chemistry I	4
CHEM 322	Organic Chemistry II	4
CHEM 323	Organic Chemistry Lab	2
KSP 330	Sport and Exercise Biomechanics	4
KSP 340	Sport and Exercise Physiology	4
PHYS 105	College Physics I <sup>1</sup>	5
PHYS 106	College Physics II	5
<b>Total Credits</b>		<b>37</b>

<sup>1</sup> This course also satisfies general education requirements at UW-Parkside.

**Pre-General Health**

Code	Title	Credits
<b>Required Courses</b>		
BIOS 102	Organismal Biology	4
BIOS 260	General Genetics	4
CHEM 102 & CHEM 104	General Chemistry II and General Chemistry Lab II <sup>1</sup>	5
PSYC 210	Introduction to Human Development	3
Required Courses Subtotal		16
<b>Elective Courses</b>		
Students must take at least nine (9) credits at the 300-level or higher selected from the concentrations within the AHS major. One of these courses must be a laboratory-based class.		9
<b>Total Credits</b>		<b>25</b>

<sup>1</sup> Students completing this concentration may substitute CHEM 115 Chemical Science/CHEM 215 Organic and Biochemistry for CHEM 101 General Chemistry I/CHEM 103 General Chemistry Lab I and CHEM 102 General Chemistry II/CHEM 104 General Chemistry Lab II.

**Pre-Occupational Therapy**

Code	Title	Credits
<b>Required Courses</b>		
BIOS 300	Human Functional Anatomy <sup>1</sup>	4
BIOS 341	Mammalian Physiology <sup>1</sup>	3
BIOS 342	Mammalian Physiology Laboratory <sup>1</sup>	1
KSP 330	Sport and Exercise Biomechanics	4
KSP 340	Sport and Exercise Physiology	4
PHYS 101	Principles of Physics <sup>2</sup>	4
PSYC 210	Introduction to Human Development	3
PSYC 360	Abnormal Psychology	3
<b>Total Credits</b>		<b>26</b>

<sup>1</sup> Students can substitute BIOS 105 Human Physiology and Anatomy I/BIOS 106 Human Physiology and Anatomy II for BIOS 300 Human Functional Anatomy/BIOS 341 Mammalian Physiology/BIOS 342 Mammalian Physiology Laboratory.

<sup>2</sup> This course also satisfies general education requirements at UW-Parkside.

**Pre-Physician Assistant**

Code	Title	Credits
<b>Required Courses</b>		
BIOS 102	Organismal Biology	4
BIOS 260	General Genetics	4
BIOS 300	Human Functional Anatomy <sup>1</sup>	4
BIOS 303	Microbiology <sup>3</sup>	4
BIOS 307	Biochemical Metabolism	3
BIOS 341	Mammalian Physiology <sup>1</sup>	3
BIOS 342	Mammalian Physiology Laboratory <sup>1</sup>	1
CHEM 102	General Chemistry II	4
CHEM 104	General Chemistry Lab II	1
CHEM 321	Organic Chemistry I	4
CHEM 322	Organic Chemistry II	4
CHEM 323	Organic Chemistry Lab	2
PHYS 101	Principles of Physics <sup>2</sup>	4
PSYC 210	Introduction to Human Development	3
PSYC 360	Abnormal Psychology	3
<b>Total Credits</b>		<b>48</b>

<sup>1</sup> Students can substitute BIOS 105 Human Physiology and Anatomy I/BIOS 106 Human Physiology and Anatomy II for BIOS 300 Human Functional Anatomy/BIOS 341 Mammalian Physiology/BIOS 342 Mammalian Physiology Laboratory.

<sup>2</sup> This course also satisfies general education requirements at UW-Parkside.

<sup>3</sup> Students may substitute BIOS 202 General Microbiology for BIOS 303 Microbiology

**Pre-Physical Therapy**

Code	Title	Credits
<b>Required Courses</b>		
BIOS 102	Organismal Biology	4
BIOS 300	Human Functional Anatomy <sup>1</sup>	4
BIOS 341	Mammalian Physiology <sup>1</sup>	3
BIOS 342	Mammalian Physiology Laboratory <sup>1</sup>	1
CHEM 102	General Chemistry II	4
CHEM 104	General Chemistry Lab II	1
KSP 330	Sport and Exercise Biomechanics	4
KSP 340	Sport and Exercise Physiology	4
KSP 345	Prevention and Care of Athletic Injuries	3
PHYS 105	College Physics I <sup>2</sup>	5
PHYS 106	College Physics II	5
PSYC 210	Introduction to Human Development	3
PSYC 360	Abnormal Psychology	3
<b>Total Credits</b>		<b>44</b>

<sup>1</sup> Students can substitute BIOS 105 Human Physiology and Anatomy I/BIOS 106 Human Physiology and Anatomy II for BIOS 300 Human Functional Anatomy/BIOS 341 Mammalian Physiology/BIOS 342 Mammalian Physiology Laboratory.

<sup>2</sup> This course also satisfies general education requirements at UW-Parkside.

Recommended but not required course for the pre-physical therapy concentration as it is becoming more common as a pre-requisite class for DPT programs: PSYC 210 Introduction to Human Development.

### Pre-Public Health

Code	Title	Credits
<b>Required Courses</b>		
BIOS 102	Organismal Biology	4
BIOS 260	General Genetics	4
COMM 107	Communication and the Human Condition <sup>1</sup>	3
COMM 340	Health Communication	3
PSYC 220	Social Psychology	3
PSYC 363	Health Psychology	3
SOCA 101	Introduction to Sociology <sup>1</sup>	3
SOCA 376	Public Health	3
Required Courses Subtotal		26
<b>Recommended Courses <sup>2</sup></b>		
BIOS 109	Biology of Aging	
BIOS 303	Microbiology <sup>3</sup>	
BIOS 311	Parasitology	
BIOS 351	Virology	
HIMT 310	Healthcare Systems and Organizations	
PHIL 340	Bioethics	
PSYC 210	Introduction to Human Development <sup>1</sup>	
ANTH 202	Human Evolution	
<b>Total Credits</b>		<b>26</b>

<sup>1</sup> These courses also satisfy general education requirements at UW-Parkside.

<sup>2</sup> Recommended but, not required courses for those in the pre-public health concentration.

<sup>3</sup> Students may substitute BIOS 202 General Microbiology for BIOS 303 Microbiology

Students should, in consultation with their AHS advisor, ensure that the pre-requisite classes required by their specific professional health programs are met, regardless of whether or not they are specifically listed in the above coursework, and that their 300-level credit graduation requirements (36 credits) are satisfied. Additionally, students are responsible for ensuring that they have met the General Education and Foreign Language requirements at UW-Parkside.

## General University Degree Requirements (Bachelor's Degree)

In addition to individual program requirements, students must also fulfill the following requirements:

Requirement	Credits
Skills	7-8
General Education	36
Foreign Language**	6-8
Ethnic Diversity	3
Total	52-55

\*\* Transfer students in sustainable management, and health information management and technology collaborative, online degree-completion programs, the business management online degree-completion program, and the flexible option degree-completion program will be exempt from the university's foreign language requirement. See appropriate academic section for further information.

Skills Requirement (<https://catalog.uwp.edu/policies/#skills>)

Code	Title	Credits
<b>Reading and Writing</b>		
ENGL 101	Composition and Reading	3
<b>Computational Skills</b>		
Select one of the following:		4-5
MATH 102	Survey of Mathematics	
MATH 103	Elementary Statistics	
MATH 104	Quantitative Reasoning	
MATH 111	College Algebra I	
<b>Total Credits</b>		<b>7-8</b>

General Education (<https://catalog.uwp.edu/policies/#general>)

- General Education Course List (<https://catalog.uwp.edu/programs/general-education-program/#coursestext>)

Foreign Language (<https://catalog.uwp.edu/policies/#language>)

Ethnic Diversity (<https://catalog.uwp.edu/policies/#ethnic>)

Degree Requirements

Requirement	Credits
Minimum Total Credits	120
Upper Level Credits (300 level or above)	36
Residency	30

Cumulative Degree GPA: 2.0 minimum