

# COLLEGE OF HEALTH AND NATURAL SCIENCE

## Health Science

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**A Bachelor of Science degree is offered in Health Sciences to traditional students.**

The mission of the Health Sciences major is to prepare students for entry into graduate programs including Physical Therapy, Nursing, Occupational Therapy, Physician Assistant, Medical School, Dental School, Veterinary School and others. The wide variety of course offerings will also allow students to explore careers in public health agencies, research, healthcare management, science writing, elder services, health education, wellness services, human services, health insurance, and pharmaceutical sales.

The curriculum develops critical thinking skills, the ability to use the medical and basic scientific primary literature, a broad biomedical knowledge base, and a clear understanding of the requirements necessary to succeed in the application to graduate schools in healthcare related fields. Students interested in careers and graduate programs in healthcare are encouraged to meet with a member of the Health Sciences Advising Committee early in their program. Faculty members of this committee will assist the student in self-assessment, development of career goals, and construction of a realistic plan for the student's successful attainment of their goals.

### **Accelerated Bachelor of Science degree in Health Science**

Franklin Pierce offers motivated students the opportunity to complete their undergraduate Health Science degrees in just three years. Students completing their undergraduate degrees through the Accelerated Program save a year's tuition and fees and enter the job market earlier or can choose to apply to our graduate program a year earlier. Several accelerated options are available to new and continuing students who have a record of strong academic achievement and a desire to advance their education.

Personalized schedules are available to student athletes and those with work or volunteer commitments so students can take advantage of all that Franklin Pierce has to offer. The following options are available:

#### **3-year Accelerated Health Science degree**

Complete your undergraduate Health Science degree in three years.

#### **3+2.5 Accelerated Health Science degree + Doctor of Physical Therapy**

Complete your undergraduate Health Science degree in three years and the Doctor of Physical Therapy degree in 2.5 years.

#### **4+2.5 Traditional Health Science degree + Doctor of Physical Therapy**

Complete your undergraduate Health Science degree in four years and the Doctor of Physical Therapy degree in 2.5 years.

#### **3+2 Accelerated Health Science degree + Master of Physician Assistant Studies**

Complete your undergraduate Health Science degree in three years and the Master of Physician Assistant Studies in 2 years.

#### **4+2 Traditional Health Science degree + Master of Physician Assistant Studies**

Complete your undergraduate Health Science degree in four years and the Master of Physician Assistant Studies in 2 years.

#### **3+1.5 Accelerated Health Science degree + Master's Entry to Practice Nursing**

Complete your undergraduate Health Science degree in three years and the Master's Entry to Practice Nursing in 1.5 years.

#### **4+1.5 Traditional Health Science degree + Master's Entry to Practice Nursing**

Complete your undergraduate Health Science degree in four years and the Master's Entry to Practice Nursing in 1.5 years.

## Major Requirements

### **Applying to the Accelerated Health Science Programs**

- Minimum cumulative grade point average (CGPA), in academic courses only, of a 3.0 on a 4.0 scale (84/100)
- Equivalent of four years of math with a final grade of B+ (87/100) or higher in each class
- Equivalent of four years of science with a final grade of B+ (87/100) or higher in each class
- Demonstrated leadership through community and school activities; related healthcare experience is highly desirable.

### **Accelerated Health Science Requirements**

To be eligible for a Health Science degree, students must fulfill the major and [GLE requirements](#). In addition, the following are the program requirements for students admitted into the accelerated programs:

- Maintain a minimum cumulative grade point average of 3.2.
- Obtain no less than a “B” in all of the Health Science major requirements.

In the event that students do not meet these requirements they will be transitioned into our standard Health Science program.

### **Health Science Curriculum**

The curriculum for the accelerated and traditional Health Science program is the same, the difference being that the accelerated program requires course work to be completed over the summer terms.

The Health Science program is able to accommodate prerequisites for the DPT, MPAS, and MEPN program. You do not need to determine the specific graduate program you wish to pursue until the spring semester of your junior year, this is where the program prerequisites diverge. Since the Health Science program incorporates elective courses in their curriculum, we have suggested courses which will directly benefit that chosen graduate profession.

### **All Health Sciences majors take the following major requirements (40 credits):**

In addition to all graduation requirements, the following courses must be completed successfully:

BI101-102	Biology I and II (laboratory) 8 credits
BI215	Biology and Health Sciences Seminar 3 credits
BI235	Human Health and Nutrition 3 credits
BI260	Human Anatomy & Physiology I 4 credits
BI261	Human Anatomy & Physiology II 4 credits
BI370	Medical Terminology and Health Systems 3 credits
BI400	Kinesiology (laboratory) 4 credits or
BI402	Exercise Physiology (laboratory) 4 credits
BI460	Internship in Biology or
BI480	Senior Seminar in Biology/Health Sciences or
BI481	Invited Senior Research 3 credits
CH101-102	General Chemistry I & II (laboratory) 8 credits

### **Health Sciences Electives**

In addition to the major requirements, students must choose 20 elective credits with a minimum of 6 credits above the 300-level from the list below:

AN325	Medical Anthropology
BI261	Anatomy & Physiology II (laboratory)
BI302	Food Production
BI310	Research Methods
BI325	Microbiology (laboratory)
BI326	Parasitology
BI327	Principles of Immunology
BI329	Special Topics
BI337	Advanced Nutrition
BI351	Endocrinology
BI353	Introduction to Pharmacology
BI400	Kinesiology/Biomechanics (laboratory)
BI402	Physiology of Exercise (laboratory)
BI403	Assessment and Prescription of Fitness
BI404	Strength and Conditioning Science
CH211	Organic Chemistry 1
CH212	Organic Chemistry 2
CH321	Biochemistry (laboratory)
ES305	Health, Human Rights, and Environmental Justice
HCA315	Epidemiology
HCA340	Healthcare Finance
HCA350	Healthcare Systems Management and Quality Improvement
HCA360	Healthcare Ethics, Policy, and Law

HCA390 Internship  
HCA450 Leadership and Management in Healthcare Organizations  
PH101 Physics 1  
PH102 Physics 2  
PS304 Introduction to Neuroscience (laboratory)  
PS430 Introduction to Psychopharmacology  
PUBH303 Biostatistics  
PUBH310 Foundations of Environmental Health Sciences  
PUBH313 Psychological, Behavioral, and Social Issues in Public Health

### Recommended Curriculum Guide - Health Sciences

<b>First Year</b>					
<i>Fall Semester</i>		<i>Credits</i>	<i>Spring Semester</i>		<i>Credits</i>
BI101	Biology (laboratory) I	4	BI102	Biology (laboratory) II	4
_____	GLE Elective	3	MT260	Statistics	3
PS101	Intro to Psychology	3	_____	GLE Elective	3
GLE101	First-Year Inquiry	3	_____	GLE Elective	3
GLE110	First-Year Composition	3	_____	GLE Elective	3
	Total	16		Total	16
<b>Second Year</b>					
<i>Fall Semester</i>		<i>Credits</i>	<i>Spring Semester</i>		<i>Credits</i>
B235	Human Health and Nutrition	3	BI215	Biology and Health Sciences Seminar	3
BI260	Human Anatomy & Physiology I (Laboratory)	4	GLE230	Second-Year Composition	3
CH101	Chemistry (laboratory) I	4	CH102	Chemistry (laboratory) II	4
_____	GLE Elective	3	BI261	Human Anatomy & Physiology II (laboratory)	4
_____	Elective	3			
	Total	17		Total	14
<b>Third Year</b>					
<i>Fall Semester</i>		<i>Credits</i>	<i>Spring Semester</i>		<i>Credits</i>
BI370	Medical Terminology and Health Systems	3	_____	Health Sciences Elective	4
BI400 or 402	Kinesiology (laboratory) <b>or</b>	4	_____	Health Sciences Elective	4

	Exercise Physiology				
_____	GLE Elective	3	BI460 or 480 or 481	Internship in Biology or Senior Seminar in Biology or Senior Seminar in Biology/Health Sciences or Invited Senior Research	3
_____	Health Sciences Elective	4	_____	Elective	3
	Total	14		Total	14

**Fourth Year**

<i>Fall Semester</i>		<i>Credits</i>	<i>Spring Semester</i>		<i>Credits</i>
_____	Health Sciences Elective	4	_____	Health Sciences Elective	4
_____	Health Sciences Elective	3	_____	Elective	3
_____	Elective	3	_____	GLE Elective	3
_____	Elective	3	_____	Elective	3
_____	Elective	3		Total	13
	Total	16		<b>Total Credits</b>	<b>120</b>

**Accelerated 3 Year Health Science Curriculum**

<b>First Year</b>					
<i>Fall Semester</i>		<i>Credits</i>	<i>Spring Semester</i>		<i>Credits</i>
BI101	Biology (laboratory) I	4	BI102	Biology (laboratory) II	4
CH101	Chemistry (laboratory) I	4	MT260	Statistics	3
PS101	Intro to Psychology	3	CH102	Chemistry (laboratory) II	4
GLE101	First-Year Inquiry	3	_____	GLE Elective	3
GLE110	First-Year Composition	3	_____	GLE Elective	3
	Total	17		Total	17
<b>Second Year</b>					
<b>Summer Courses</b>					

<i>Fall Semester</i>		<i>Credits</i>	<i>Spring Semester</i>		<i>Credits</i>
B235	Human Health and Nutrition	3	BI215	Biology and Health Sciences Seminar	3
BI260	Human Anatomy & Physiology I (Laboratory)	4	GLE230	Second-Year Composition	3
_____	Health Science Elective	4	_____	Health Science Elective	4
_____	Elective	3	BI261	Human Anatomy & Physiology II (laboratory)	4
_____	Elective	3	_____	Elective	3
	Total	17		Total	17

**Third Year****Summer Courses**

<i>Fall Semester</i>		<i>Credits</i>	<i>Spring Semester</i>		<i>Credits</i>
BI370	Medical Terminology and Health Systems	3	_____	Health Sciences Elective	4
BI400 or 402	Kinesiology (laboratory) <b>or</b> Exercise Physiology	4	_____	Health Sciences Elective	4
_____	Elective	3	_____	Elective	3
_____	Health Sciences Elective	4	_____	Elective	3
_____	Elective	3	_____	Elective	3
	Total	17		Total	16
				<b>Total Credits</b>	<b>120</b>

**Program Courses**

<b>Course Code</b>	<b>Course Name</b>
AN325	Medical Anthropology
BI101	Biology I
BI102	Biology II
BI215	Biology Hlth Sci Seminar
BI235	Human Health & Nutrition
BI260	Human Ana & Phys I Lab
BI261	Human Ana & Phys II Lab

Course Code	Course Name
BI302	Food Production
BI310	Research Methods
BI325	Microbiology Laboratory
BI326	Parasitology
BI327	Principles of Immunology
BI329	Special Topics in Biology
BI337	Advanced Nutrition
BI351	Endocrinology
BI353	Intro to Pharmacology
BI370	Medical Terminology
BI400	Kinesiology - lab
BI402	Exercise Physiology lab
BI403	Assess Presript Fitness
BI404	Strength & Conditioning
BI460	Internship in BI/ HS
BI480	Senior Seminar in Biology
BI481	Senior Thesis
CH101	General Chemistry I Lab
CH102	General Chemistry II Lab
CH211	Organic Chemistry I Lab
CH212	Organic Chemistry II Lab
CH321	Biochemistry Lab
ES305	Hlth, Hmn Rghts & Env Jst
HCA315	Fundamentals/Epidemiology
HCA340	Healthcare Finance
HCA350	Hlthcare Sys Qlty Mgmt
HCA360	Hlthcare Ethics,Plicy,Law
HCA390	Healthcare Internship
HCA450	Ldrshp/Mgmt Healthcare
PH101	General Physics I Lab
PH102	General Physics II Lab
PS304	Intro to Neuroscience
PS430	Intro Psychopharmacology
PUBH303	Biostatistics
PUBH310	Found Envi Health Sci
PUBH313	Psyc/Beh/Soc Iss Pub Hlth