Health Science

at Benedictine University

Why study health science at Benedictine?

If you are interested in a health-related career and want a challenging yet flexible academic preparation, you may choose to major in Health Science at Benedictine University. Our program offers you the opportunity to design your curriculum with more freedom and flexibility than is the case with most majors. It prepares you for further study toward careers in medicine, dentistry, pharmacy, physical or occupational therapy, podiatry, veterinary medicine and other health-related professions. Benedictine University has a close working relationship with many outstanding medical facilities in the Chicago area and with many individual professionals who supervise our students in unique practical observation experiences. Our program is recognized by many area professional schools as providing excellent preparation for success.

What comprises the major in Health Science?

- Introductory Biology - Principles of Organismal Biology (3 semester credit hours) and Principles of Biology and Lab (4 semester credit hours).
- Chemistry - 16 semester credit hours: four courses in General Chemistry and Organic Chemistry with labs.
- Biochemistry - 3 semester credit hours (Principles of Biochemistry or Biochemistry).
- Physics - 8 semester credit hours: two courses in College Physics with Lab or University Physics with Lab.
- Math - at least 3 semester credit hours: College Trigonometry or proficiency in a higher mathematics course. Note: some health professional programs may require calculus.
- Health Science Core: (22 semester credit hours) - Microbiology, Genetics, Anatomy, Human Physiology, Biostatistics, Cell Biology and a writing-intensive seminar course.
- Science Electives: 10 semester credit hours of advanced science (200 level or above); at least 5 semester credit hours must be at the 300 level.
- Health Science Practicum - A 2 semester credit-hour clinical experience in physical or occupational therapy, dentistry, podiatry, veterinary medicine, optometry or medicine is available as an elective.

How does the program work?

1. *Excellent academic preparation* through biology and cognate math and science coursework prepares you with both the science knowledge and the higher-level thinking skills to succeed in a health care career.
2. *Practicum:* Clinical experience for credit in at least one health science specialty is offered to students in the Health Sciences major. This course gives students the opportunity to observe professionals in the field, leading to a better understanding of the rewards and challenges found in your chosen health care profession.
3. *Advising:* You will consult with advisors in both basic science and clinical fields regarding academic preparation and application to professional schools. Our director of Pre-Professional Health Programs and the Health Science Recommendations Committee, the latter comprised of faculty members who have intimate knowledge of the academic subject matter and the qualifications necessary to be successful in a health-related career, will help guide your path.

"During my first year at Loyola's medical school, I realized how prepared I was compared to other students in the program. I was way ahead because Benedictine's pre-med program is so far ahead of many others. I heard Benedictine's pre-med program was good, but I didn't realize how good until I went to medical school."

- Jim Sostak, C01

Recommended Program

Bachelor of Science in Health Science

FRESHMAN

Writing Colloquium	3
College Trigonometry	3
General Chemistry I and Lab	4
Principles of Biology and Lab	4
	14

Research Writing	3
Basic Speech	3
General Chemistry II and Lab	4
Principles of Organismal Biology	3
Historical Course (QHT) course	3
	16

JUNIOR

College Physics I and Lab	4
Cell Biology	3
Literary/Rhetorical (QLR) course	3
Electives	3-6
	13-16

College Physics II and Lab	4
Biochemistry	3
Human Anatomy	4
Social Scientific II: Political, Global and Economic Systems (QPE)	3
Artistic and Creative (QCA) course	3
	16

SOPHOMORE

Organic Chemistry I and Lab	4
Biostatistics	3
Genetics	3
Catholic and Benedictine Intellectual Traditions (IDS 201)	3
Elective	3
	16

Organic Chemistry II and Lab	4
Human Physiology	4
Religion/Theological (QRT) course	3
Social Scientific I: Individuals, Organizations and Societies (QIO)	3
	14

SENIOR

Science elective (300 level)	3
Microbiology	4
Philosophical (QPL) course	3
Human Dignity and the Common Good (IDS 301)	3
Electives	3
	16

Science elective (200 level)	3
Science elective (300 level)	3
Electives	9
Great Ideas in Biology and Medicine	1
	16

Inquiry (Q) courses may be taken in any order. One elective or Q course must have a "Global" designation, and one must be writing intensive.

The Health Science 4+1 Program with the Master of Science in Clinical Exercise Physiology

The 4+1 Program allows you to earn a Bachelor of Science in Health Science in four years and a Master of Science in Clinical Exercise Physiology with just one additional year of graduate work. This is possible because in the Health Science 4+1 Program, you take graduate-level courses as part of the Health Science major. In your first four years, you will take a variety of interesting courses such as Physiology, Human Anatomy, Biochemistry and Nutrition within the framework of a strong liberal arts curriculum. You will also benefit from 100 contact hours of practical experience in the rehabilitation and fitness workplace.

What to look forward to in earning your Master of Science in Clinical Exercise Physiology

In your graduate year, you will complete the requirements for the Master of Science in Clinical Exercise Physiology. The required graduate courses can be found on the bottom of the next page.

Admission to the graduate program in Clinical Exercise Physiology is not automatic. The undergraduate student must meet the requirements for graduate school, which include a 3.0 GPA (on a 4-point scale). Strong candidates should have achieved a grade of "B" or higher in BIOL 258 Human Physiology and BIOL 358 Exercise Physiology.

Successful completion of the Master of Science in Clinical Exercise Physiology is determined after passing an academic/competency skill exam offered as a part of Lab IV. Students are encouraged to sit for the American College of Sports Medicine (ACSM) Registered Clinical Exercise Physiologist exam after completion of the program. The recommended course sequence can be modified to the special needs of a student completing prerequisite classes in the first year.

Recommended Program

Bachelor of Science in Health Science
4+1 Master of Science in Clinical Exercise Physiology

FRESHMAN

Writing Colloquium	3
College Trigonometry	3
General Chemistry I and Lab	4
Social Science core elective	3
Elective	3
	16
Research Writing	3
General Chemistry II and Lab	4
Principles of Biology and Lab	4
Elective	3
	14

JUNIOR

Nutritional Science	3
Human Anatomy	4
Electives	6
Principles of Biochemistry	3
	16
Exercise Physiology	3
Electives	6
Biomechanics	3
Great Ideas in Biology and Medicine	1
Human Dignity and the Common Good (IDS 301)	3
	16

SOPHOMORE

Basic Speech	3
Biostatistics	3
College Physics I and Lab	4
Organic Chemistry I and Lab	4
Catholic and Benedictine Intellectual Traditions (IDS 201)	3
	17
Human Physiology	4
College Physics II and Lab	4
Organic Chemistry II and Lab	4
Elective	3
	15

SENIOR

Fitness Testing	1
Professional Experiences in Clinical Exercise Physiology	1
Advanced Exercise Physiology I	1
Advanced Human Physiology	3
Electives	9
	15
EKG Lab	1
Exercise Biochemistry and Metabolism	3
Pathophysiology and Prevention	3
Internship	2
Elective	3
	12

Inquiry (Q) courses may be taken in any order. One elective or Q course must have a "Global" designation, and one must be Writing Intensive.

Master of Science in Clinical Exercise Physiology

Summer

Behavior Modification and Preventative Complementary Health	3
Exercise Physiology Lab III–Graded Exercise Testing	2
Laboratory Ethics/Laboratory Procedures	2
	7

Fall

Advanced Exercise Physiology II	3
Exercise Pharmacology	3
Internship	2
	8

Spring

Special Populations	3
Applied Nutritional Physiology	3
Internship	2
	8

Summer

Program Development and Administration	2
Exercise Physiology Lab IV–Comprehensive Exam	2
	4