

HEALTH AND HUMAN PERFORMANCE (MS)

This program has been replaced with Exercise Science (MS) and is not accepting new students. Students who have enrolled in the Health and Human Performance program prior Fall 2023 will use these standards to complete their degree. Health and Human Performance students currently enrolled have the ability to switch to the Exercise Science (MS) degree if they choose. Contact Dr. Karl Kozlowski for more information on moving from Health and Human Performance to Exercise Science.

Program Director: Dennis Koch, PhD

Faculty: Paul Childress, MS, CSCS; Chad Ford, MS; Gregory Reeds, EdD; Kaitlyn Summers, MS, RD, CDE; Kassi Valade, MS, RCEP; Sheryl Warren, MS, RD.

Degree: Master of Science

Introduction

The Master of Science degree program in Health and Human Performance at Canisius University trains students in the areas of rehabilitative and preventive health, and gives students options to specialize in clinical exercise science, health promotion, or strength and conditioning. This degree is appropriate for people who hope to work in corporate wellness, fitness training, clinical exercise physiology, human performance/strength and conditioning, or research settings. The program prepares students to practice in clinical settings as part of a health care team, or to work in exercise and health-promotion programs with apparently healthy or high-risk populations. This program also offers a solid platform to go on to doctoral studies. Finally, students have found this program to be helpful in preparing for medical school or doctor of physical therapy programs.

Offered in a **hybrid format** that includes some online and some face-to-face classes, the 34 to 35 credit hour MS program offers students the choice between an internship and a research (thesis) experience, the latter a preparation for doctoral programs. For out-of-town students, **all face-to-face courses required for graduation can be completed in 1 semester** in Buffalo, and the rest of the curriculum can be completed from anywhere.

The curriculum will provide students with appropriate course work and field experiences to prepare for the American College of Sports Medicine's Certified Personal Trainer (ACSM-CPT), Certified Exercise Physiologist (ACSM-EP), and Certified Clinical Exercise Physiologist (ACSM-CEP) certification exams. There is also coursework geared towards preparing students for the Certified Strength and Conditioning Specialist (CSCS) exam offered by the National Strength and Conditioning Association (NSCA).

Admission

Applications are processed on a rolling basis and are considered as they are received for each term. We recommend submitting all materials required for admission at least 30 days prior to the start of the term you wish to begin. Earlier application will ensure the best scheduling options, as some course sections may become unavailable. Terms are eight weeks in length, and students may start in the fall, spring, or summer semesters. The online application can be submitted with no application fee.

To qualify for admission, all students must:

- Complete the graduate admissions application.
- Complete a baccalaureate degree from an accredited institution of higher learning with a minimum GPA of 2.70.
- Submit one (1) official undergraduate transcript from each institution attended with the degree posted from the degree-granting institution.
- Submit two (2) letters of recommendation.
- Provide evidence of sufficient college-level coursework in the areas of anatomy and physiology and exercise physiology. Students who do not meet prerequisites may be required to complete additional coursework.
- Provide a statement of purpose of approximately 500 words explaining your motivation for pursuing the MS in Health and Human Performance at Canisius College. The statement may be submitted in the essay section of the graduate application.

Transfer credit: Previous graduate level transfer credits will be assessed on a case-by-case basis.

Program Details

Academic Standing

Students must maintain a GPA of 3.00 to graduate from the program. If the GPA drops below 3.00, the student will be placed on academic probation. If the student does not bring his/her cumulative GPA above 3.00 by the end of the next term, the student may be dismissed from the program. A student may also be academically dismissed from the program by receiving more than 2 grades below B-.

Curriculum

Total credit hours = 34 or 35, depending on specialty track chosen. Every student must complete 19 credit hours of core courses, each of the courses in one (1) of the specialty tracks, and 6 credit hours of internship or thesis.

Code	Title	Credits
Core Courses		
ALH 502	Nutrition	3
HHP 506	Epidemiology	1
ALH 520	Exercise Prescription	3
HHP 521	Exercise Testing	3
ALH 582	Functional Conditioning	3
ALH 631	Research Methods in Allied Health	3
ALH 632	Data Analysis and Statistics	3
Specialty Track		
Select one of the specialty tracks listed below		9-10
Additional Requirements		
Select one of the following:		6
ALH 689 & ALH 699	Master's Project and Masters Project II ¹	
HHP 603 & HHP 604	Internship I and Internship II	
Total Credits		34-35

¹ Students will receive a grace period of 1 term to complete the thesis without having to register for ALH 700. However, any student who has not completed their final thesis/project by the end of the grace period will be registered for the 1-credit hour course, ALH 700 for that semester, and then for each subsequent semester until the project/thesis is complete.

Specialty Track 1: CLINICAL EXERCISE SCIENCE

Code	Title	Credits
HHP 565	Electrocardiography and Clinical Stress Testing	4
ALH 602	Cardiopulmonary Pathophysiology	3
ALH 621	Cardiopulmonary Pharmacodynamics	3
Total Credits		10

Specialty Track 2: Strength and Conditioning

Code	Title	Credits
ALH 522	Fitness Psychology	3
HHP 583	Advanced Movement Analysis	3
ALH 622	Sports and Fitness Nutrition	3
Total Credits		9

Learning Goals and Objectives

Learning Goal #1: Degree candidates in the M.S. program in Health and Human Performance will understand exercise and nutrition principles necessary to be competent and effective exercise physiologists.

Students will have the opportunity to:

- 1.1 - Demonstrate principles of exercise and relate them to fitness development.
- 1.2 - Know and apply nutritional principles.
- 1.3 - Know the pathophysiology of common cardiovascular and pulmonary diseases as well as the mechanisms through which commonly used medications work to treat these diseases.

Learning Goal #2: Degree candidates in the M.S. program in Health and Human Performance will safely and effectively assess patient status, evaluate fitness, and prescribe exercise.

Students will have the opportunity to:

- 2.1 - Prescribe safe and effective exercise for a variety of populations, including healthy clients, athletes, and special populations.
- 2.2 - Demonstrate safe and proper use of clinical techniques and protocols to assess a client's fitness and/or clinical status. Create an appropriate sport-specific exercise prescription for an athlete.

Learning Goal #3: Degree candidates in the M.S. program in Health and Human Performance will demonstrate appropriate dispositions in a professional setting.

Students will have the opportunity to:

- 3.1 Exhibit personal attributes of dependability, preparedness, willingness to learn, and responsibility in a professional setting.

Learning Goal #4: Degree candidates in the M.S. program in Health and Human Performance will demonstrate information literacy and critical thinking skills within their field of study.

Students will have the opportunity to:

- 4.1 - Systematically analyze, evaluate, and critique a published, peer-reviewed article identifying threats to validity and weaknesses in methodology, as well as evaluating the appropriateness of statistical analysis used to derive conclusions.
- 4.2 - Design a quantitative research study related to their field of study with appropriate consideration given to ethical issues and appropriate controls for threats to validity.
- 4.3 - Use peer-reviewed journals and other reputable sources to develop an epidemiological argument as to whether a cause-and-effect relationship exists between a potential risk factor and a disease or other health outcome.

Courses

In addition to the courses listed below, courses for this program with the Allied Health (ALH) prefix can be found on the Professional Studies page (<http://catalog.canisius.edu/graduate/school-education-human-services/professional-studies/#coursestext>).

HHP 506 Epidemiology 1-2 Credits

The study of the distribution and determinants of health related states or events in a population and applications to control specific health problems. Emphasis will be placed on discussing evidence for the role of lifestyle choices in determining long-term health and chronic disease risk.

Offered: every fall, online only.

HHP 521 Exercise Testing 3 Credits

Didactic instruction and practical training will be used to educate students in the various methodologies used to assess adult health and fitness. Practical experiences include the assessment of cardiovascular risk, coronary artery disease risk stratification, body composition assessment, functional capacity assessment and muscular fitness assessment.

Offered: every spring.

HHP 604 Internship II 3 Credits

Continues HHP 603.

Prerequisite: HHP 603 & permission of program director.

Offered: fall, spring & summer.