

# APPLIED EXERCISE SCIENCE (MS)

The Master of Science in Applied Exercise Science program was designed in partnership with the American College of Sports Medicine (ACSM), National Academy of Sports Medicine (NASM), International Society of Sports Nutrition (ISSN) and National Strength and Conditioning Association (NSCA). The five distinct concentrations prepare individuals for certification exams with ACSM, ISSN, NASM and NSCA.

1. The **Exercise Physiology** concentration was designed for individuals who want to pursue a career as a Certified Exercise Physiologist, or who wish to gain a deeper understanding of conducting and interpreting physical fitness assessments and developing exercise prescriptions. Students who pursue this concentration will be prepared to sit for the American College of Sports Medicine's Certified Exercise Physiologist exam.
2. The **Human Movement Science** concentration is an advanced specialization that provides professionals with the knowledge and skills to assist clients with muscle imbalances, musculoskeletal impairments and post-rehabilitation concerns. This strand prepares individuals for the advanced certifications in human movement science.
3. The **Sports Nutrition** concentration was designed for individuals who aspire to provide sound nutrition information to athletes and physically active individuals. This strand prepares individuals for the Certified Sports Nutritionist (CISSN) exam.
4. The **Sports Performance Training** concentration was designed for coaches, athletic trainers and other sports professionals who work with all levels of athletes from high school players up through Olympic competitors. This strand prepares individuals for advanced certifications in sports performance training.
5. The **Strength & Conditioning** concentration was designed for individuals who have an interest in the theory and practice of strength and conditioning. Students who pursue this program will be prepared to sit for the National Strength & Conditioning Association's Certified Strength and Conditioning Specialist (CSCS) exam or other advanced certification in strength and conditioning.

## General Graduate Admission Requirements

All applicants must meet the general admission requirements for Concordia University Chicago graduate programs as published in the Concordia University Chicago academic catalog (<https://catalog.cuchicago.edu/graduate/graduate-admission-student-services/>).

New students are accepted into graduate degree-seeking, certificate, endorsement and/or post-graduate programs for online and on-campus study in the fall, spring, or summer semesters. Previously admitted students seeking to change programs may do so at the beginning of a semester (only) by submitting a Change-of-Program quick app (<https://capp.cuchicago.edu/graduate/change-of-program/>). Applicants must be in good academic standing according to Concordia University Chicago's satisfactory academic progress standards at the time of requesting a program change.

## Degree Requirements

Code	Title	Hours
<b>Required Core Courses</b>		<b>18</b>
AES-6020 or AES-6040	Kinesiology I Biomechanics I	3
(Strength and Conditioning students take AES-6020, Exercise Physiology Track 2 students take AES-6040)		
AES-6030 or AES-6045	Kinesiology II Biomechanics II	3
(Strength and Conditioning students take AES-6030)		
AES-6050	Research Design and Methods in Exercise Science	3
AES-6200 or AES-6250	Applied Exercise Physiology Advanced Exercise Physiology	3
(Strength and Conditioning and Exercise Physiology Track 2 students take AES-6250)		
AES-6300	Exercise and Sport Nutrition	3
AES-6830 or AES-6990	Application of Advanced Strength and Conditioning (required for Strength and Conditioning concentration only) Capstone Experience	3
<b>Area of Concentration</b>		<b>12-18</b>
Select one of the following Areas of Concentration:		
Exercise Physiology (p. 1)		
Human Movement Science (p. 1)		
Sports Performance Training (p. 2)		
Sports Nutrition (p. 2)		
Strength and Conditioning (p. 2)		
<b>Total Hours</b>		<b>30-36</b>

## Areas of Concentration

### Human Movement Science

Code	Title	Hours
AES-6500	Principles of Human Movement Science	3
AES-6520	Program Design in Corrective Exercise Training	3
AES-6540	Practicum: Human Movement Science	3
AES-6560	Special Topics: Seminar in Movement Science	3

### Exercise Physiology - Select one track

Code	Title	Hours
Track 1: For students who meet no ASCM course requirements		18
AES-6000	Anatomy and Physiology	3
AES-6040	Biomechanics I	3
AES-6700	Principles of Exercise Testing, Prescription and Health Risk Appraisal	3
AES-6770	Exercise Testing and Prescription for Special Populations	3
AES-6780	Patient Education and Behavioral Change Strategies	3
AES-6810	Essentials of Strength Training and Conditioning	3
or		

Track 2: For students who have an undergraduate degree in Exercise Science		12
AES-6040	Biomechanics I (core requirement)	-
AES-6700	Principles of Exercise Testing, Prescription and Health Risk Appraisal	3
AES-6770	Exercise Testing and Prescription for Special Populations	3
AES-6780	Patient Education and Behavioral Change Strategies	3
AES-6810	Essentials of Strength Training and Conditioning	3

### Sports Performance Training

Code	Title	Hours
AES-6600	Principles of Sports Performance Training	3
AES-6620	Program Design in Sports Performance Training	3
AES-6640	Practicum: Sports Performance Training	3
AES-6660	Special Topics: Seminar in Sports Performance Training	3

### Sports Nutrition

Code	Title	Hours
AES-6320	Vitamins and Minerals	3
AES-6340	Nutrition and Exercise for Weight Management	3
AES-6360	Practicum: Sports Nutrition	3
AES-6380	Special Topics: Seminar in Sports Nutrition	3

### Strength and Conditioning

Code	Title	Hours
AES-6815	Principles of Strength and Conditioning I	3
AES-6825	Principles of Strength and Conditioning II	3
AES-6835	Psychology of Sport and Exercise	3
AES-6845	Strength and Conditioning Field Experience I	3
AES-6850	Strength and Conditioning Field Experience II	3

- Have on file, if applicable, necessary copies of a project, thesis or dissertation.
- Take and pass the final examination or terminal requirements in the program during or after the final course.
- Approval of the faculty.
- All administrative obligations to CUC must be cleared in order to prompt the release of CUC transcripts and diploma(s).

Every attempt has been made to include information to aid the student with information about his/her program, degree and graduation/completion requirements. It is, however, the student's responsibility to complete all steps and meet all deadlines relevant to graduation requirements.

## Graduation Requirements

- Have on file an application as a degree-seeking graduate student.
- Have on file one official transcript from EACH college/university attended of all previous coursework taken.
- Complete, for the degree being sought:
  - the credit hours and levels as designated,
  - within the specified time limit,
  - with grades of C- or higher,
  - with a minimum cumulative GPA of 3.0.
- Students completing multiple advanced programs or degrees at CUC must have a 3.0 GPA in each academic program in addition to a minimum cumulative GPA of 3.0.
- If transfer credit is approved to be applied: have on file an approved "Graduate Transfer Credit Approval" form(s) or evaluation(s).
- Have on file the Intent to Graduate/Complete form with the Office of the Registrar by the published deadline.