

MAJOR IN HEALTH AND EXERCISE SCIENCE, PRE-NURSING CONCENTRATION

Many students pursuing a degree in Health and Exercise Science (HES) plan to apply to nursing school, and this concentration is designed to prepare them for post-baccalaureate nursing programs, including accelerated Bachelor of Nursing programs. The coursework within this concentration covers common nursing school prerequisites (<https://hp.colostate.edu/>). HES courses are tailored to equip students with the skills to help people protect, maintain, and improve their health and quality of life throughout the lifespan. Students in this concentration are strongly encouraged to consult with their academic advisor and the Health Professions Advising Team (<https://hp.colostate.edu/>) to ensure they meet the specific prerequisites for their targeted nursing schools.

This concentration also serves as a pathway to CSU's 3+2 Master of Science in Nursing (MSN) program, offered on the Fort Collins campus in collaboration with CSU Pueblo's School of Nursing. Students interested in the 3+2 MSN program must begin in the Pre-Nursing Concentration and apply to the MSN program during their third semester. If accepted, students will transition from this concentration to the Major in Health and Exercise Science, Nursing Concentration (<https://catalog.colostate.edu/general-catalog/colleges/health-human-sciences/health-exercise-science/health-exercise-science-major-nursing-concentration/>). If not accepted, students will remain in the Pre-Nursing Concentration to complete the nursing prerequisite coursework and earn their Bachelor of Science degree in Health and Exercise Science (<https://catalog.colostate.edu/general-catalog/colleges/health-human-sciences/health-exercise-science/health-exercise-science-major/>), after which they can apply to accelerated Bachelor of Nursing programs.

Learning Objectives

Upon successful completion of this concentration, students will be able to:

1. Demonstrate critical thinking and the ability to apply knowledge related to the key concepts, issues, and tools fundamental to health and exercise science.
2. Understand the importance of physical activity in optimizing physical and mental health and preventing/treating disease and disability in people of all ages and provide a detailed explanation of physical activity guidelines and recommendations.
3. Develop and demonstrate practical knowledge and understanding in human anatomy and physiology through active classroom learning, laboratory, supervised college teaching, capstone projects, research involvement, practicums, and/or internship experiences.
4. Demonstrate the ability to communicate effectively through writing and oral presentations. Writing skills will focus on the ability to synthesize and apply health and exercise science disciplinary knowledge. Presentation skills will focus on the ability to find and summarize scientific information, develop complementary visual aids, and speak with confidence.
5. Demonstrate competence in health promotion and disease prevention in a community-based health related program.
6. Develop a depth of knowledge that enables them to critically evaluate health-related programs and products and distinguish between evidence-based facts and popular fads.
7. Develop collaborative skills necessary to work as a cooperative, productive, and accountable team member while working with individuals of diverse backgrounds.

Requirements Effective Fall 2026

Students must have an cumulative 2.0 GPA in all AUCC courses. If students would like to apply to the 3+2 Master's of Nursing and the corresponding Health and Exercise Science Nursing Concentration, all coursework in Semesters 1-4 must be completed with a grade of C or better.

Freshman

		AUCC	Credits
CHEM 107 ¹	Fundamentals of Chemistry (GT-SC2)	3A	4
CHEM 108 ¹	Fundamentals of Chemistry Laboratory (GT-SC1)	3A	1
CO 150	College Composition (GT-CO2)	1A	3
FSHN 150	Introduction to Human Nutrition		3
HDFS 101	Lifespan Development (GT-SS3)	3C	3
HES 145	Health and Wellness for Everyone (GT-SS3)	1C	3
HES 202	Introduction to Exercise Physiology (GT-SC2)	3A	3
HES 207	Anatomical Kinesiology		4
MATH 118 ²	College Algebra in Context II (GT-MA1)	1B	1
MATH 124 ²	Logarithmic and Exponential Functions (GT-MA1)	1B	1
Select one group from the following:			4

Group A

BZ 110	Principles of Animal Biology (GT-SC2)	3A
BZ 111	Animal Biology Laboratory (GT-SC1)	3A

Group B

LIFE 102	Attributes of Living Systems (GT-SC1)	3A
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Arts and Humanities (<https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/> 3B #arts-humanities) 3

Total Credits		33
Sophomore		
HES 340	Exercise Prescription	3
HES 354	Theory of Health Behavior	3
LIFE 205	Microbial Biology	3
LIFE 206	Microbial Biology Laboratory	2
MATH 125 ²	Numerical Trigonometry (GT-MA1)	1B
OT 215	Medical Terminology	1
PSY 100	General Psychology (GT-SS3)	3C
SOC 100	Introduction to Sociology (GT-SS3)	3C
SPCM 200	Public Speaking	3
Select one course from the following:		4
BMS 300	Principles of Human Physiology	
HES 300	Physiology for Clinical Health Professions	
Select one course from the following:		3
STAT 201	General Statistics (GT-MA1)	1B
STAT 301	Introduction to Applied Statistical Methods	
Arts and Humanities (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/ 3B #arts-humanities)		3
Historical Perspectives (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives)		3D

Total Credits		35
Junior		
CO 301B	Writing in the Disciplines: Sciences (GT-CO3)	2
HDFS 332	Death, Dying, and Grief	3
HES 345	Population Health and Disease Prevention	3
HES 403	Physiology of Exercise	4B
HES 404	Physiology of Exercise Laboratory	4B
HES 420	Electrocardiography and Exercise Management	3
HES 434	Physical Activity Throughout the Lifespan	3
HES 440	Perspectives in Clinical Patient Care	3
Pre-Nursing Guided Elective (see list below)		3
Elective ^{3,4}		3

Total Credits		28
Senior		
BMS 301	Human Gross Anatomy	5
HES 303	Biomechanics and Neurophysiology	3
HES 310	Human Pathophysiology	3
HES 455	Health Promotion Programming	4A,4C
Pre-Nursing Guided Elective (see list below)		7
Elective ^{3,4}		3
Total Credits		24

Program Total Credits: 120

Pre-Nursing Guided Elective List

Code	Title	Credits	BMS *** Upper Division Electives	0-7
Select a minimum of 7 credits from this list:			CHEM 245	Fundamentals of Organic Chemistry
BC 351	Principles of Biochemistry	4	CHEM 246	Fundamentals of Organic Chemistry Laboratory

FSHN 340	Food as Medicine	3
HDFS 201	Current Topics in Healthy Aging	3
HDFS 315	Disability Across the Lifespan and Culture	3
HES ***	Upper Division Electives	0-7
MIP 300	General Microbiology	3
MIP 302	General Microbiology Laboratory	2
PBHL 200	Introduction to Public Health (GT-SS3)	3
PSY 252	Mind, Brain, and Behavior	3
PSY 320	Psychopathology	3
SOC 344	Health, Medicine, and Society	3

¹ CHEM 111/CHEM 112 can be substituted for CHEM 107/CHEM 108.

² MATH 155 or MATH 160 may be substituted for MATH 118, MATH 124, and MATH 125.

³ Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300-400).

⁴ Nursing pathophysiology is a common prerequisite for BSN programs. A recommended external option is NSG 207 online from CSU Pueblo. Students should consult with their advisor for additional options.

Major Completion Map

Students must have an cumulative 2.0 GPA in all AUCC courses. If students would like to apply to the 3+2 Master's of Nursing and the corresponding Health and Exercise Science Nursing Concentration, all coursework in Semesters 1-4 must be completed with a grade of C or better.

Freshman

Semester 1

		Critical	Recommended	AUCC	Credits
FSHN 150	Introduction to Human Nutrition	X			3
HDFS 101	Lifespan Development (GT-SS3)	X		3C	3
HES 145	Health and Wellness for Everyone (GT-SS3)	X		1C	3
MATH 118	College Algebra in Context II (GT-MA1)	X		1B	1
MATH 124	Logarithmic and Exponential Functions (GT-MA1)	X		1B	1
Select one group from the following		X			4
Group A:					
BZ 110	Principles of Animal Biology (GT-SC2)			3A	
BZ 111	Animal Biology Laboratory (GT-SC1)			3A	
Group B					
LIFE 102	Attributes of Living Systems (GT-SC1)			3A	
Total Credits					15

Semester 2

		Critical	Recommended	AUCC	Credits
CHEM 107	Fundamentals of Chemistry (GT-SC2)	X		3A	4
CHEM 108	Fundamentals of Chemistry Laboratory (GT-SC1)	X		3A	1
CO 150	College Composition (GT-CO2)	X		1A	3
HES 202	Introduction to Exercise Physiology (GT-SC2)	X		3A	3
HES 207	Anatomical Kinesiology	X			4
Arts and Humanities (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)			X	3B	3
Total Credits					18

Sophomore

Semester 3

		Critical	Recommended	AUCC	Credits
HES 354	Theory of Health Behavior	X			3
MATH 125	Numerical Trigonometry (GT-MA1)	X		1B	1
SPCM 200	Public Speaking	X			3
Select one course from the following:					4
BMS 300	Principles of Human Physiology	X			
HES 300	Physiology for Clinical Health Professions	X			
Select one course from the following:					3
STAT 201	General Statistics (GT-MA1)	X		1B	
STAT 301	Introduction to Applied Statistical Methods	X			
Arts and Humanities (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)			X	3B	3
Total Credits					17

Semester 4		Critical	Recommended	AUCC	Credits
HES 340	Exercise Prescription	X			3
LIFE 205	Microbial Biology	X			3
LIFE 206	Microbial Biology Laboratory	X			2
OT 215	Medical Terminology	X			1
PSY 100	General Psychology (GT-SS3)	X		3C	3
SOC 100	Introduction to Sociology (GT-SS3)	X		3C	3
Historical Perspectives (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives)			X	3D	3
Total Credits					18
Junior					
Semester 5		Critical	Recommended	AUCC	Credits
CO 301B	Writing in the Disciplines: Sciences (GT-C03)	X		2	3
HDFS 332	Death, Dying, and Grief	X			3
HES 345	Population Health and Disease Prevention	X			3
HES 420	Electrocardiography and Exercise Management	X			3
HES 434	Physical Activity Throughout the Lifespan	X			3
Total Credits					15
Semester 6		Critical	Recommended	AUCC	Credits
HES 403	Physiology of Exercise	X		4B	3
HES 404	Physiology of Exercise Laboratory	X		4B	1
HES 440	Perspectives in Clinical Patient Care	X			3
Pre-Nursing Guided Elective (see list on Concentration Requirements tab)			X		3
Elective			X		3
Total Credits					13
Senior					
Semester 7		Critical	Recommended	AUCC	Credits
HES 303	Biomechanics and Neurophysiology	X			3
HES 310	Human Pathophysiology				3
Pre-Nursing Guided Elective (see list on Concentration Requirements tab)			X		3
Elective			X		3
Total Credits					12
Semester 8		Critical	Recommended	AUCC	Credits
BMS 301	Human Gross Anatomy				5
HES 455	Health Promotion Programming	X		4A,4C	3
Pre-Nursing Guided Elective (see list on Concentration Requirements tab)		X			4
The benchmark courses for the 8th semester are the remaining courses in the entire program of study.		X			
Total Credits					12
Program Total Credits:					120