

Exercise Science and Nutrition

Department Information

- **Program Director:**
Elizabeth Hilliard, Ph.D.
- **Department Location:**
Bentson Bunker Fieldhouse
- **Department Phone:**
(701)231-6737
- **Department Web Site:**
www.ndsu.edu/hnes/phd_in_exercise_science_and_nutrition/ (http://www.ndsu.edu/hnes/phd_in_exercise_science_and_nutrition/)
- **Application Deadline:**
Applications that are complete by March 15 will be given priority for fall semester. Applications completed after March 15 will be reviewed through May 1 for consideration for fall semester.
- **Credential Offered:**
Ph.D.
- **English Proficiency Requirements:**
TOEFL ibt 79; IELTS 6.5

Program Description

The Department of Health, Nutrition and Exercise Sciences (HNES) offers a Doctorate of Philosophy (PhD) program in Exercise Science and Nutrition (https://www.ndsu.edu/hnes/graduate_programs/phd_in_exercise_science_and_nutrition/). Exercise Science and Nutrition are traditionally separate disciplines that strive to improve human health or human performance. Combined, the two form a strong and natural approach to improve well-being. Exercise Science and Nutrition includes the study of energy systems, nutrient intake, behavior motivation, and the physiology and mechanics of movement. Faculty are scholars in community nutrition, nutrition across the lifespan, clinical nutrition, exercise science, biomechanics, and physical activity and health.

Program Objectives

The purpose of the PhD program is to train doctoral students in Exercise Science and Nutrition for future careers in industry and academia. The program requires coursework and scholarly activities that will produce professionals with strong skills in research, teaching, grant writing, and service who will be competitive and productive in their careers. These professionals will have a strong understanding of both Exercise Science and Nutrition that will enable them to assume positions of leadership in research and teaching in community, government, university or other professional agencies and organizations.

Professional Knowledge. Students understand disciplinary content knowledge and apply such knowledge in the field of exercise science and/or nutrition.

Scientific Inquiry and Research Skills. Students understand modes of scientific inquiry and develop research skills to answer questions in the disciplines of exercise and/or nutrition.

Professionalism. Students gain leadership experiences and obtain career-oriented credential(s) in exercise science and/or nutrition.

Career Opportunities

A PhD in Exercise Science and Nutrition offers a wide array of career opportunities. Graduates of the program can expect to work for governmental and human service agencies, for-profit and not-for-profit research organizations, as well as in university-level education and research positions. A unique and attractive aspect to this degree is that it can prepare students to work in either nutrition or exercise science academic units upon graduation. Graduates of this program are equipped to meet the needs of changing regional, national, and global populations as related to their health and well-being.

Admission Requirements

Of the qualified PhD applicants we receive, we expect to admit up to five students per year, based on the capacity of our current faculty. In addition to the core faculty members in HNES who will advise students and participate in this program, there are faculty inside and outside of the department whose research interests mesh well with the program.

Applicants with a Master's degree:

- Completion of a Master's degree from an accredited university in a field closely related to Nutrition, Health, Dietetics, Kinesiology, or Exercise Science.
- Cumulative graduate GPA of 3.00 or higher.
- GRE exam scores in the upper 50th percentile for the Verbal, Quantitative, and Writing portions are given priority admission.
- At least one graduate course in statistics and one course in research methods, with grades of B or higher in each.
- A completed thesis or research paper.
- Agreement to be advised by current HNES graduate faculty member.

Applicants without an earned Master's degree:

- Completion of a Bachelor's degree from an accredited university in a field closely related to Nutrition, Health, Dietetics, Kinesiology, or Exercise Science.
- Cumulative undergraduate GPA of 3.0 or higher.
- GRE exam scores in the upper 50th percentile for the Verbal, Quantitative, and Writing portions are given priority admission.
- At least one statistics course or research methods course with grades of B or higher.
- Agreement to be advised by current HNES graduate faculty member.

Financial Assistance

Graduate Assistantships are available for up to 20 hours a week based on faculty need and available funding. Assistantships are renewable on a yearly basis dependent upon student performance. Assistantship awards also include full tuition remission regardless of residency. Students are typically provided shared offices, computers, and access to printers, and support staff. Assistantships typically begin the week before fall semester classes and continue through finals week of spring semester. Summer is not included in most assistantship awards.

Students Entering with a Master's Degree

Code	Title	Credits
Research Core		12
STAT 725	Applied Statistics	
9 additional credits in statistics and research methodology		
Recommended HNES Core		9
HNES 713	Graduate Exercise Physiology	
HNES 726	Nutrition in Wellness	
HNES 777	Scholarly Writing and Presenting in HNES	
Electives (up to 6 credits outside of HNES)		18
HNES 727	Physical Activity Epidemiology	
HNES 703	Graduate Biomechanics of Sport and Exercise	
HNES 704	Psychological Foundation of Sport & Physical Activity	
HNES 710	Introduction to Research Design and Methods in HNES	
HNES 735	Nutrition and Human Performance	
HNES 743	Obesity Across the Lifespan	
HNES 754	Assessment in Nutrition and Exercise Science	
HNES 760	Skeletal Muscle Physiology	
HNES 761	Physiological and Fitness Assessment in Exercise Science	
HNES 762	Exercise Endocrinology	
HNES 764	Advanced Cardiovascular Exercise Physiology	
HNES 790	Graduate Seminar	
HNES 791	Temporary/Trial Topics	
Research Practicum (minimum of 3 credits)		3-6
HNES 894	Practicum/Internship	
Teaching Experience (minimum of 3 credits)		3-6
HNES 892	Graduate Teaching Experience	
Dissertation (must encompass at least two separate semesters)		15
HNES 899	Doctoral Dissertation	
Total Credits (minimum)		60

Students Entering with a Bachelor's Degree

Code	Title	Credits
Research Core		21
STAT 725	Applied Statistics	
HNES 710	Introduction to Research Design and Methods in HNES	
12 additional credits in statistics and research methodology		
Recommended HNES Core		9
HNES 713	Graduate Exercise Physiology	
HNES 726	Nutrition in Wellness	
HNES 777	Scholarly Writing and Presenting in HNES	
Electives (up to 6 credits outside of HNES)		33
HNES 727	Physical Activity Epidemiology	
HNES 735	Nutrition and Human Performance	
HNES 703	Graduate Biomechanics of Sport and Exercise	
HNES 704	Psychological Foundation of Sport & Physical Activity	
HNES 743	Obesity Across the Lifespan	
HNES 754	Assessment in Nutrition and Exercise Science	
HNES 760	Skeletal Muscle Physiology	
HNES 761	Physiological and Fitness Assessment in Exercise Science	
HNES 762	Exercise Endocrinology	
HNES 764	Advanced Cardiovascular Exercise Physiology	
HNES 790	Graduate Seminar	
HNES 791	Temporary/Trial Topics	
Research Practicum (9-12 credits)		9-12
HNES 894	Practicum/Internship	
Teaching Experience (3-6 credits)		3-6
HNES 892	Graduate Teaching Experience	
Dissertation (must encompass at least two semesters)		15
HNES 899	Doctoral Dissertation	
Total Credits (minimum)		90

Bryan Christensen, Ph.D.

University of Kansas, 2000

Research Interests: Biomechanics, Sports Psychology, Strength and Conditioning

Shannon David, Ph.D.

Ohio University, 2013

Research Interests: Patient-Clinician Relationship, Patient Oriented Outcomes

Nathan Dicks, Ph.D.

North Dakota State University, 2019

Research Interests: Exercise Testing; Tactical Population Wellness, Fitness, and Performance

Marty Douglas, Ph.D.

Michigan State University, 2009

Research Interests: Adapted Physical Activity

Julie Garden-Robinson, Ph.D.

North Dakota State University, 1994

Research Interests: Nutrition Education, Chronic Disease Prevention, Food Safety/Science

Kyle Hackney, Ph.D.

Syracuse University, 2013

Research Interests: Skeletal Muscle, Sarcopenia, Muscle Inactivity, Ergogenic Aids, Sports Performance

Elizabeth Hilliard, Ph.D.

North Dakota State University, 2018

Research Interests: Breastfeeding Support and Promotion in the Workplace, and Infant and Child Feeding Practices

Ryan McGrath, Ph.D.

University of Idaho, 2015

Research Interests: Frailty and Health, Epidemiology of Aging, Physical Activity and Health for Aging Adults and Persons with Disabilities, Disability Prevention

Yeong Rhee, Ph.D.

Oklahoma State University, 1999

Research Interests: Chronic Disease Prevention, Functional Foods

Sherri Nordstrom Stastny, Ph.D.

North Dakota State University, 2007

Research Interests: Nutrition for Healthy Aging

Bradford N. Strand, Ph.D.

University of New Mexico, 1988

Research Interests: Physical Education Curriculum and Instruction, Fitness Education, Sport Sociology

Seungmin Kang, Ph.D.

Louisiana State University, 2021

Research Interests: Sport for Development and Peace (SDP), Shared Leadership in SDP, Nonprofit Partnerships, Leadership and Human Resource Development

Kelsey Slater, Ph.D.

Mississippi State University, 2021

Research Interests: Sport for Development, Sport Diplomacy and Sport Communication

Joel White, Ph.D

University of Northern Colorado, 2009

Research Interests: Sport Marketing and Sport Finance

Matt Drescher, Ph.D

Indiana State University, 2023

Research Interest: Curricular Design, Healthcare Simulation, Ethics Education, and Advanced Manual Therapy

Joshua Wooldridge, Ph.D

University of Nevada, Las Vegas, 2023

Research Interest: Musculoskeletal Injury Help-Seeking Behaviors, Health Sciences Research Methods, Tactical Health and Human Performance