

# Health, Nutrition and Exercise Science

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## Department Information

- **Department Head:**  
Yeong Rhee, Ph.D.
- **Graduate Coordinator:**  
Kyle Hackney, Ph.D.
- **Department Location:**  
Bentson Bunker Fieldhouse
- **Department Phone:**  
(701) 231-7474
- **Department Web Site:**  
[www.ndsu.edu/hnes/](http://www.ndsu.edu/hnes/) (<http://www.ndsu.edu/hnes/>)
- **Application Deadline:**  
Exercise/Nutrition Science option: Applications completed by March 15 will be given priority for fall. Leadership in Physical Education and Sport option: rolling enrollment; enrollment is limited to 32 students. M.S. Dietetics (online), GPIDEA: March 1 for summer/fall and October 15 for spring.
- **Credential Offered:**  
M.S.
- **English Proficiency Requirements:**  
TOEFL ibt 79; IELTS 6.5; Duolingo 105

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## Program Description

The Master of Science (M.S) in Health, Nutrition, and Exercise Sciences (HNES) offers graduate study options in Exercise/Nutrition Science ([https://www.ndsu.edu/hnes/graduate\\_programs/exercisenutrition\\_science/](https://www.ndsu.edu/hnes/graduate_programs/exercisenutrition_science/)) (blended learning: online and in-person courses) and Leadership in Physical Education and Sport ([https://www.ndsu.edu/hnes/graduate\\_programs/leadership\\_in\\_physical\\_education\\_and\\_sport/](https://www.ndsu.edu/hnes/graduate_programs/leadership_in_physical_education_and_sport/)) (online program at in-state tuition rates for out-of-state and international students). The different "options" represent the emphasis provided in the curriculum and culminating experience leading to the M.S degree. There is also an accelerated BS/MS in Dietetics and Nutrition path within the MS option in Exercise/Nutrition Science.

### M.S- Health, Nutrition and Exercise Sciences

#### Option-Exercise/Nutrition Science ([https://www.ndsu.edu/hnes/graduate\\_programs/exercisenutrition\\_science/](https://www.ndsu.edu/hnes/graduate_programs/exercisenutrition_science/))

The Exercise/Nutrition Science option prepares the graduate for advanced positions with an emphasis in the areas of physical activity, exercise science, nutrition, and health promotion. The department is devoted to researching and understanding the long-term effects of physical activity and nutrition, and translating this research into effective exercise science and wellness programs for children, adolescents, and adults of all ages. This option is appropriate for Nutrition, Dietetics, and Exercise Science graduates. There are three paths to complete the MS degree in this option (Plan A- Thesis, Plan B- Paper, Plan C- Internship/Capstone).

Admission requirements are as follows:

1. Cumulative baccalaureate GPA of 3.0 or better on a 4.0 scale.
2. Completion of a Bachelor's degree from an accredited university in field closely related to Nutrition, Dietetics, or Exercise Science.
3. A faculty has agreed to be the applicant's mentor.
4. The GRE is NOT required for this option.

#### ***Accelerated BS/MS in Dietetics and Nutrition***

This is a combined program for undergraduate dietetics students. Students apply for the dietetics program in the spring of their second (sophomore) year and then apply for the accelerated M.S. program in the fall of their third (junior) year. Students in this option will earn a B.S. in Dietetics, an M.S. in Exercise/Nutrition Science, and complete the required 1200 hours of supervised practice to sit for the national Registration Exam for Dietitians. The program is designed to be completed in 5 years. Students who are interested should contact the College of Human Development and Education Academic Advisor located in EML 270 for more information.

## Option- Leadership in Physical Education and Sport ([https://www.ndsu.edu/hnes/graduate\\_programs/leadership\\_in\\_physical\\_education\\_and\\_sport/](https://www.ndsu.edu/hnes/graduate_programs/leadership_in_physical_education_and_sport/))

The Leadership in Physical Education and Sport (LPES) option is an online program that prepares teachers, coaches, and sport leaders to become actively engaged in leadership roles within school systems or professional organizations. This degree prepares students to be master teachers, head coaches, department heads, and activities directors at the interscholastic level; assistant coaches, lecturers, and assistant or lead directors at the intercollegiate level; and to become actively engaged in leadership roles within professional organizations.

Admission requirements are as follows:

1. Cumulative baccalaureate GPA of 3.0 or better on a 4.0 scale.
2. Undergraduate degree in the field of Kinesiology (physical education, coaching, sports management, etc.)
3. The GRE is NOT required for this option.

A 3.0 is needed to be considered for full acceptance into the LPES program. Applicants with an undergraduate GPA below 3.0 will be considered for conditional acceptance and will have to complete 6 graduate credit hours with grades of at least B to be considered for full standing. Meeting these criteria does not guarantee acceptance.

Admission to a MS- HNES program is considered ONLY after all required application materials have been received and reviewed.

## MS- option in Exercise/Nutrition Science ([https://www.ndsu.edu/hnes/graduate\\_programs/exercisenuitrition\\_science/](https://www.ndsu.edu/hnes/graduate_programs/exercisenuitrition_science/))

Minimum criteria and application information to be considered for admission for all paths (Plan A- thesis, Plan B- paper, Plan C- Internship/Capstone): Note-meeting the minimum criteria does not guarantee acceptance in the program. Workload limitations and capacity limits for the program or faculty mentor apply.

- The GRE is **NOT** required for this degree option.
- GPA 3.0 or higher
- Undergraduate major of Dietetics, Exercise Science, or closely related field.
- Application to the NDSU Graduate School which includes: precise statement of purpose, official transcripts, and three professional letters of recommendation.
- In the application, please indicate what degree path (Plan A- Thesis, Plan B- Paper, Plan C- Internship/Capstone) you are primarily considering at this time. This path can change once admitted but provides the HNES department with preliminary information on your plan of study. A description of all the paths are described below.
- Please also note in your application if you are interested in a graduate assistantship position and indicate any previous experience with teaching, research, or other specific skills, abilities, or certifications you possess that would be relevant.

The Department of Health, Nutrition, and Exercise Sciences reserves the right to obtain additional information about the applicant's professional competence from qualified professionals. Admission decisions are based upon the predicted success of the applicant as a student and professional in the chosen field and are made only after considering all available data.

## MS- Option in Leadership in Physical Education and Sport ([https://www.ndsu.edu/hnes/graduate\\_programs/leadership\\_in\\_physical\\_education\\_and\\_sport/](https://www.ndsu.edu/hnes/graduate_programs/leadership_in_physical_education_and_sport/))

Admission is competitive and limited to 32 students. Applications are accepted on a rolling basis and students may be admitted for fall, spring, and summer semesters. Admitted out-of-state and international students are charged in-state tuition rates for this online program.

Admission requirements are as follows:

1. Cumulative baccalaureate GPA of 3.0 or better on a 4.0 scale.
2. Undergraduate degree in the field of Kinesiology (physical education, coaching, sports management, etc.)
3. The GRE is NOT required for this option.

A 3.0 is needed to be considered for full acceptance into the LPES program. Applicants with an undergraduate GPA below 3.0 will be considered for conditional acceptance and will have to complete 6 graduate credit hours with grades of at least B to be considered for full standing. Meeting these criteria does not guarantee acceptance.

## Financial Assistance

Both research and teaching assistantships may be available. Applications are considered on the basis of scholarship, potential to undertake advanced study and research, and financial need. To be considered for an assistantship, a completed Graduate School application, official transcripts, and three letters of reference must be received by the Graduate School by the program deadline. The department admits students for fall semester only in the Ph.D. program and the MS Exercise/Nutrition option. Graduate assistants receive a financial stipend for their work, and a full tuition waiver for fall, spring, and summer semesters. Assistantships are available contingent upon current funding and faculty need.

## Exercise/Nutrition Science Option

### Plan A- thesis

The thesis typically includes a problem statement, a review of existing literature relevant to that problem, and the creation and presentation of new knowledge in providing a solution to the problem. Each student assembles a supervisory committee and pass a final oral examination in which the supervisory committee serves as the examining committee. Following a successful defense, the candidate will submit an electronic copy of their thesis to the Graduate School for review. This path is recommended for all students but specifically relevant for those interested in going on to further graduate work (PhD, DPT, MD). Total Credits 31.

### Plan B- paper

The Plan B master's student will develop a thorough understanding of existing knowledge and the ability to apply that existing knowledge to a problem of interest. Note that under this degree, the new knowledge being created is limited, and this is the primary difference between the Plan A and Plan B degrees. The precise nature of the individual creative component is defined by the program. Examples of possible creative components include a comprehensive paper or an integrated field experience. Each student would assemble a supervisory committee and pass a final oral examination. Following a successful defense, the candidate will compose an executive summary or assemble other appropriate documentation as defined by the program to be submitted to the Graduate School. This submission to the Graduate School is to be approved by the student's supervisory committee. This path is recommended for all students but is specifically relevant for those who wish to obtain employment directly after completing their degree or who may still be interested in further graduate work but the scope of the next step is not yet defined. Total credits 31.

### Plan C-Internship/Capstone

The Plan C is designed for programs in which a well-defined culminating experience is more important than is an individual creative component. Each program will define a culminating experience such as a capstone experience or some other approach to measure the candidate's understanding of the relevant material in the area (certification, internship experience/project). The student's supervisory committee would generally consist of faculty solely from within that discipline. The supervisory committee may specify that a certain level of performance (i.e., a minimum GPA) be obtained in specified courses or in the program itself. Upon completion of the appropriate course work and culminating experience, the candidate must submit the examination documentation (if required by program) and an Application for Graduate Degree to Graduate School. This path is recommended for all students but is specifically relevant for those who are currently employed full-time in the community and are wishing to advance their current employment status (i.e., no further graduate work). Total credits 34.

Code	Title	Credits
<b>Plan A - Thesis Option</b>		<b>31</b>
HNES 790	Graduate Seminar (Introduction to HNES )	1
HNES 713	Graduate Exercise Physiology	3
HNES 710	Introduction to Research Design and Methods in HNES	3
HNES 726	Nutrition in Wellness	3
HNES 727	Physical Activity Epidemiology	3
STAT 725	Applied Statistics	3
Electives (See below)		9
HNES 798	Master's Thesis	6
<b>Plan B - Master's Paper Option</b>		<b>31</b>
HNES 790	Graduate Seminar (Seminar Introduction to HNES)	1
HNES 710	Introduction to Research Design and Methods in HNES	3
HNES 713	Graduate Exercise Physiology	3
STAT 725	Applied Statistics	3
HNES 726	Nutrition in Wellness	3
HNES 727	Physical Activity Epidemiology	3
Electives (see below)		12
HNES 797	Master's Paper	3
<b>Plan C - Internship/Capstone Option</b>		<b>34</b>

HNES 790	Graduate Seminar (Seminar Introduction to HNES)	1
HNES 713	Graduate Exercise Physiology	3
HNES 726	Nutrition in Wellness	3
Electives (see below)		18 or more
Choose 6 credits from		
HNES 793	Individual Study	
HNES 794	Practicum/Internship	
HNES 795	Field Experience	
<b>Electives</b>		
HNES 660	Leadership and Communication in Dietetics	3
HNES 703	Graduate Biomechanics of Sport and Exercise	3
HNES 704	Psychological Foundation of Sport & Physical Activity	3
HNES 724	Nutrition Education	3
HNES 735	Nutrition and Human Performance	
HNES 754	Assessment in Nutrition and Exercise Science	3
HNES 760	Skeletal Muscle Physiology	3
HNES 761	Physiological and Fitness Assessment in Exercise Science	3
HNES 762	Exercise Endocrinology	
HNES 770	Evidence Based Research and Practice	2
HNES 777	Scholarly Writing and Presenting in HNES	3
HNES 791	Temporary/Trial Topics	1-5
HNES 792	Graduate Teaching Experience	1-6

## Leadership in Physical Education and Sport Option

The program requires a total of 30 credits. Students must complete the three required courses (offered every year) and may select the remaining courses from the elective list. Students present a final portfolio demonstrating their proficiency of program standards and competencies during the final semester of coursework.

Code	Title	Credits
<b>Required</b>		
HNES 700	Research in Physical Education and Sport	3
HNES 701	Leadership and Supervision	3
HNES 712	Principles of Management	3
<b>Elective</b>		
HNES 704	Psychological Foundation of Sport & Physical Activity	3
HNES 705	Analysis of Sport Skill Instruction and Acquisition	3
HNES 707	Sport in American Society	3
HNES 708	Positive Youth Development through Sport	3
HNES 709	Leadership Influence in Physical Education and Sport	3
HNES 711	Physical Education Curriculum	3
HNES 714	Legal Liability in HPER	3
HNES 715	Teaching Concepts -Based Fitness	3
HNES 716	Financial Management in Sport	3
HNES 731	Governance in Sport	3
HNES 736	Ethical Leadership	3
HNES 737	School-wide Physical Activity Promotion	3
HNES 738	Adapted Physical Education	3
HNES 739	Sport Revenue Generation	3
HNES 790	Graduate Seminar	1-3
HNES 792	Graduate Teaching Experience	1-6

HNES 793	Individual Study	1-3
HNES 795	Field Experience	1-3

**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

**Joe Deutsch, Ph.D.**

North Dakota State University, 2007

Research Interests: Physical Education Teacher Education, Youth Sport Coaching

**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, CSCS, CCD.**

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

**Jenny Linker, Ph.D.**

University of Illinois Urbana-Champaign, 2011

Research Interests: Comprehensive School Physical Activity Programs, Physical Education Teacher Preparation

**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

**Donna J. Terbizan, Ph.D.**

The Ohio State University, 1982

Research Interests: Exercise Physiology, Fitness, Wellness, Exercise Science, Chronic Disease Change