Exercise Science and Nutrition

Program and Application Information

Program Coordinator: Dr. Bryan Christensen
Department Phone: 701-231-6737
Department Web Site: www.ndsu.edu/hnes/phd_in_exercise_science_and_nutrition/
Application Deadline: January 15
Degrees 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 doctoral program 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, metabolism, 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. Prevention and treatment of obesity, improving physical activity, and building community-based health enhancements across the lifespan are strengths of the HNES faculty.

Program Objectives

The purpose of the program is to train doctoral students in Exercise Science and Nutrition. The program requires coursework and 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.

Students will:
1. Acquire ability, knowledge, and research skills in Exercise Science and Nutrition
2. Conduct original research in Exercise Science and Nutrition
3. Gain experience with classroom teaching
4. Be prepared as professionals in Exercise Science and Nutrition

Career Opportunities

A doctorate 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.

Student’s Entering with a Master’s Degree

60 credits minimum

<table>
<thead>
<tr>
<th>Research Core</th>
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<tbody>
<tr>
<td>STAT 725</td>
<td>Applied Statistics (6 additional credits in statistics, of which at least 3 must be from STAT department)</td>
</tr>
<tr>
<td>HNES 710</td>
<td>Introduction to Research Design and Methods in HNES</td>
</tr>
<tr>
<td>or HNES 777</td>
<td>Scholarly Writing and Presenting in HNES</td>
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<tr>
<td>3 additional credits in research methodology for (PSY, HDFS or HNES)</td>
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<tr>
<th>Required HNES Core</th>
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<tbody>
<tr>
<td>HNES 726</td>
<td>Nutrition in Wellness</td>
</tr>
<tr>
<td>HNES 727</td>
<td>Physical Activity Epidemiology</td>
</tr>
<tr>
<td>HNES 743</td>
<td>Obesity Across the Lifespan</td>
</tr>
<tr>
<td>HNES 754</td>
<td>Assessment in Nutrition and Exercise Science</td>
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<tr>
<td>HNES 790</td>
<td>Graduate Seminar (4.0 credits; 1.0 credits/semester required for each of the first two years enrollment)</td>
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<tr>
<td>HNES 794</td>
<td>Practicum/Internship (Research Practicum)</td>
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Choose three courses from one of the following options:

Exercise Science

| HNES 703 | Graduate Biomechanics of Sport and Exercise |
| HNES 713 | Graduate Exercise Physiology |
| HNES 760 | Skeletal Muscle Physiology |
| HNES 761 | Physiological and Fitness Assessment in Exercise and Nutrition Science |

Nutrition

| HNES 652 | Nutrition, Health and Aging |
| HNES 655 | Sports Nutrition |
| HNES 721 | Health Promotion Programming |
| HNES 724 | Nutrition Education |

Electives (maximum of 3.0 credits Independent Study) 4

| HNES 794 | Practicum/Internship (Teaching Practicum- May be waived with significant evidence of teaching experience based on committee approval.) |
| HNES 899 | Doctoral Dissertation |

Students Entering with a Bachelor’s Degree

90 credits minimum

<table>
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<tr>
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<tbody>
<tr>
<td>HNES 726</td>
<td>Nutrition in Wellness</td>
</tr>
</tbody>
</table>
**HNES 727**  
Physical Activity Epidemiology  

**HNES 743**  
Obesity Across the Lifespan  

**HNES 754**  
Assessment in Nutrition and Exercise Science  

**HNES 790**  
Graduate Seminar (6.0 credits; 1.0 credits/semester required for each of the first three years enrollment)  

<table>
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<th>Choose One Of The Following Two Options</th>
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<tbody>
<tr>
<td><strong>HNES 703</strong></td>
<td>Graduate Biomechanics of Sport and Exercise</td>
</tr>
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<td><strong>HNES 713</strong></td>
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**Nutrition**  

| **HNES 652** | Nutrition, Health and Aging |
| **HNES 655** | Sports Nutrition |
| **HNES 721** | Health Promotion Programming |
| **HNES 724** | Nutrition Education |
| **HNES 794** | Practicum/Internship (Research) | 9-12 |

**Electives (maximum of 6.0 credits Independent Study)**  

| **HNES 794** | Practicum/Internship (Teaching-May be waived with significant evidence of teaching experience based on committee approval.) | 3-6 |
| **HNES 899** | Doctoral Dissertation | 10-15 |

**Thomas C. Barnhart, Ph.D.**  
University of New Mexico, 1978  
Research Interests: Recreation Management, Playground Safety

**Ardith Brunt, Ph.D.**  
Iowa State University, 1999  
Research Interests: Nutrition, Gerontology

**Wonwoo Byun, Ph.D.**  
University of South Carolina-Columbia, 2012  
Research Interests: Physical Activity Epidemiology

**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: Athletic Training

**Joe Deutsch, Ph.D.**  
North Dakota State University, 2007  
Research Interests: Physical Education Teacher Education; Coaching

**Marty Douglas, Ph.D.**  
Michigan State University  
Research Interests: Adapted Physical Activity

**Kara Gange, Ph.D.**  
North Dakota State University, 2010  
Research Interests: Athletic Training

**Julie Garden-Robinson, Ph.D.**  
North Dakota State University, 1994  
Research Interests: Nutrition and Food Safety

**Nikki German, Ph.D.**  
North Dakota State University, 2008  
Research Interests: Athletic Training

**Kyle Hackney, Ph.D.**
Mary Larson, Ph.D.
University of North Dakota, 2008
Research Interests: Health Promotion and Lifestyle Medicine

Jenny Linker, Ph.D.
University of Illinois Urbana-Champaign, 2011
Research Interests: Physical Education; Teacher Preparation

Katie Lyman, Ph.D.
University of South Florida, 2014
Research interests: Kinesio Tape®, Manual Medicine, Emergency Medicine

Yeong Rhee, Ph.D.
Oklahoma State University, 1999
Research Interests: Trace Elements, Chronic Disease, Immune Function, Functional Foods

Sherri Nordstrom Stastny, Ph.D.
North Dakota State University, 2007
Research Interests: Nutrition, Gerontology

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