Montana University System
INTENT TO PLAN FORM

Program/Center/Institute Title: PhD in Exercise and Nutrition Sciences

Campus, School/Department: MSU-Bozeman, EHHD/HHD

Expected Submission Date: October 2018

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To increase communication, collaboration, and problem-solving opportunities throughout the MUS in the program/center/institute development process, please complete this form not more than 18 months in advance of the anticipated date of submission of the proposed program/center/institute to the Board of Regents for approval. The completed form should not be more than 2-3 pages. For more information regarding the Intent to Plan process, please visit http://mus.edu/che/arsa/academicproposals.asp.

1) Provide a description of the program/center/institute.

The PhD in Exercise and Nutrition Sciences will provide training for careers focused on research and or teaching based on the STEM foundations of the exercise and nutritional sciences. This program will build on the existing Master of Science program in Exercise and Nutrition Sciences at MSU-Bozeman, or related MS degrees from other institution. The subdisciplines of exercise science that are particularly strong based on coursework and faculty expertise are exercise nutrition/metabolism, exercise physiology, and biomechanics. These subdisciplines are applied sciences built on the foundational sciences of biochemistry, cellular and molecular biology, anatomy, physiology, physics, and mathematics. The PhD in Exercise and Nutrition Sciences will require a minimum of 60 credits, including a minimum of 18-28 credits of dissertation and consideration of up to 21 non-research credits from the MS degree. Coursework for the PhD will be focused in research design and statistical analyses and one of the areas of exercise nutrition/metabolism, exercise physiology, or biomechanics. This program will be housed in the Department of Health and Human Development (HHD), and faculty contributing to the mentoring, coursework, and research training for this program will be from the Departments of HHD (Becker, Heil, McMillin, Miles, and Seifert), Mechanical & Industrial Engineering (Monfort), and other MSU departments as appropriate to the area of focus. Active inter-departmental research collaborations to support student research include the departments of HHD Biochemistry, Mechanical & Industrial Engineering, Microbiology & Immunology, and Animal & Range Sciences.

2) Describe the need for the program/center/institute. Specifically, how the program/center/institute meets current student and workforce demands. (Please cite sources).

Exercise and Nutrition Sciences is a growth area of demand at Montana State University. The undergraduate program in health and human performance currently has over 400 students. Approximately 25 students are enrolled at the masters’ level. Demand exists in the state for a Ph.D. in Exercise and Nutrition Sciences and demand exists in the United States for hiring students with completed doctorates, especially in colleges and universities offering degrees in exercise science, kinesiology, exercise physiology, physical therapy, recreation therapy, personal training, ergonomics consulting, coaching, athletic training, sports administration, and in strength and conditioning. Students with Ph.D. degrees work at universities doing teaching and research, but also are active in research with private businesses developing products and
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services related to human performance and physical well-being. Doctoral students at Montana State would receive training and experience in college teaching and would be active in research laboratories.

3) Describe how the program/center/institute fits with the institutional mission, strategic plan, and existing institutional program array.

In addition to advancing the research productivity of faculty and graduate students, the increase in PhD students in this STEM field supports the efforts of the institution to regain the Carnegie ranking as very high in research productivity. Faculty who will work with the doctoral students in this program are research active and the addition of doctoral students will augment the ability of these faculty to secure external funding and research publications. The PhD in Exercise and Nutrition Sciences aligns primarily with the learning and discovery component of the MSU strategic plan. Specifically, MSU Planning Council recommended focusing on five objectives for the strategic plan update in process, including:

- **“Discovery 1: Elevate the research excellence and recognition of MSU faculty.”**

  We expect the addition of doctoral students to our research groups to elevate our research quality and productivity of current and future faculty members. Current faculty who will serve as PhD mentors and committee members are research and grant active, however, reliance on master’s level students as graduate research assistants is a limitation with respect to the level of responsibility they can be given and their experience level both in the laboratory and for writing. Additionally, the added depth to our research capacity will enhance our ability to compete for external funding.

- **“Discovery 3: Expand the scale, breadth, and quality of doctoral education.”**

  Addition of a PhD in Exercise and Nutrition Sciences will expand the scale of doctoral education; however, this particular PhD program will be valuable for the addition of breadth of doctoral education. There are no comparable PhD programs at MSU or in the state of Montana that are aimed at translational research to enhance human health and well-being. The vast majority of the research in Exercise and Nutrition Sciences currently being conducted at MSU is human-focused (as opposed to animal models).

- **“Stewardship 1: Attract, develop and retain the best faculty and staff to achieve the MSU mission.”**

  Addition of a PhD program will enhance our ability to recruit and retain faculty members in the area of Exercise and Nutrition Sciences. There is a great deal of research funding available for research relating to prevention and treatment of disease and injury, health and wellness, aging, and other areas. Faculty who have trained at the doctoral and post-doctoral levels to engage in health sciences research are looking for opportunities that will support their research, and doctoral programs are an important aspect of that support.

4) Describe how the program/center/institute overlaps, complements, or duplicates existing efforts in the MUS. Describe efforts that will be made to collaborate with similar programs at other institutions. If no efforts will be made, please explain why.

Currently, the only program somewhat similar to the proposed Ph.D. is the Doctorate of Physical Therapy (DPT), which is offered at the University of Montana. The DPT is a clinical degree and not aligned with the research skills taught and
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experienced within the Ph.D. There are students pursuing the Individual Interdisciplinary PhD (IIP) who have HHD faculty for the proposed program chairing and or co-chairing their committees, thus the proposed program would compliment this program. Unlike the IIP students, the Exercise and Nutrition Sciences PhD students will focus their studies within one area and the supporting sciences.

Signature/Date

College/School Dean:  
Chief Academic Officer:  
Chief Executive Officer:  
Flagship Provost*:  
Flagship President*:  

*Not applicable to the Community Colleges.

Date of Final Review:

When submitting the proposal to the BOR, include this signed form with the Level II request.