UCONN
UNIVERSITY OF CONNECTICUT

December 8, 2021

TO: Members of the Board of Trustees

FROM: Carl W. Lejuez, Ph.D.
                Provost and Executive Vice President for Academic Affairs

RE: Graduate Certificate in Precision Nutrition

<u>RECOMMENDATION</u>:

That the Board of Trustees approve a new Graduate Certificate in Precision Nutrition.

<u>BACKGROUND</u>:

The Department of Nutritional Sciences currently offers both an in-person Master of Science in Nutritional Science and a 30-credit online Master of Science in Personalized Nutrition (MSPN). The proposed graduate certificate in Precision Nutrition is designed to attract a part-time student audience to a fast growing and emerging nutritional specialization. The graduate program in Precision Nutrition is a four-course, 12-credit, online graduate certificate program. Precision nutrition aims to take advantage of molecular understandings of nutrient-gene interactions by identifying genetic backgrounds that contribute to metabolic heterogeneities of various nutrients in the context of nutrition-relevant diseases. This program will build fundamental knowledge of this rapidly advancing field of nutrition.

The program provides advanced knowledge in nutritional genomics and metabolism for individuals working in healthcare, private practice, and industry. To earn a Certified Nutrition Specialist (CNS) credential, 12 credit hours of graduate-level nutrition-specific courses are required from June 2022 (current requirement is 9 credit hours). Therefore, this new graduate certificate in precision nutrition will attract MD, DO, DC, DDS, DNP, ND, PharmD, and RD who are seeking the CNS credential to meet the nutrition graduate course requirement. There are 10 job postings for every degree conferral nationally in the area of human nutrition.

We anticipate graduating 12-15 students per year when the program matures in 3-5 years. No additional funding or financial resources is requested at this time. This program is designed to be entrepreneurial and net revenue positive.

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General Information

Name of degree program:	Graduate Certificate in Precision Nutrition
Name of sponsoring Department:	Nutritional Sciences
Name of sponsoring College:	College of Agriculture, Health and Natural Resources
Campuses:	Program Entirely Online
Contact persons:	Lee Ji-Young
Type of Proposal:	New
Type of Program:	Graduate Certificate in Precision Nutrition
Anticipated Initiation Date:	Fall 2022
Program Payment Type:	Fee- based
CIP Code:	19.0504

Justification for the New Program

The Department of Nutritional Sciences currently offers both an in-person Master of Science in Nutritional Science and a 30-credit online Master of Science in Personalized Nutrition (MSPN). The proposed graduate certificate in Precision Nutrition is designed to attract a part-time student audience to a fast growing and emerging nutritional specialization. The graduate program in Precision Nutrition is a four-course, 12-credit, online graduate certificate program. The program provides advanced knowledge in nutritional genomics and metabolism for individuals working in healthcare, private practice, and industry. To earn a Certified Nutrition Specialist (CNS) credential, 12 credit hours of graduate-level nutrition-specific courses are required from June 2022 (current requirement is 9 credit hours). Therefore, this new graduate certificate in precision nutrition will attract MD, DO, DC, DDS, DNP, ND, PharmD, and RD who are seeking the CNS credential to meet the nutrition graduate course requirement. There are 10 job postings for every degree conferral nationally in the area of human nutrition. A further review of Burning Glass data reveals that enrollment growth increased by an average of 60% over the last five years in the five largest online programs. The largest program in Human Nutrition in the country is the online program at the University of Bridgeport (81 conferrals in 2018). The second largest is at the University of New England, also entirely online.

Are there similar programs in CT or elsewhere?

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What are the desired learning outcomes of the program?

- Assess biochemical and physiological functions, metabolic pathways, interactions, and deficiencies/toxicities of macro/micronutrients
- Compare the roles of genetic variants in diverse nutrient metabolisms.
- Connect biochemical, physiological and molecular aspects of energy metabolism and inflammatory pathways in the pathogenesis of metabolic diseases and the role of diet.
- Administer precision nutrition recommendations, focusing on the interaction between macro/micronutrients and human/microbial genes.

Program Description

The graduate certificate in Precision Nutrition program provides advanced knowledge in nutritional genomics and metabolism for individuals working in healthcare, private practice, and industry. Precision nutrition aims to take advantage of molecular understandings of nutrient-gene interactions by identifying genetic backgrounds that contribute to metabolic heterogeneities of various nutrients in the context of nutrition-relevant diseases. This program will build fundamental knowledge of this rapidly advancing field of nutrition. Students will gain genetic, biochemical, physiological, pathophysiological, and clinical understandings of nutrient metabolism to assess the unique nutritional needs of individuals to develop personalized diet recommendations for the promotion of health and prevention of chronic diseases.

Proposed Graduate Catalogue Copy

The Department of Nutritional Sciences offers a 12-credit online graduate certificate program in Precision Nutrition. The program is designed for individuals working in healthcare, private practice, and industry. It provides advanced knowledge in human nutrition, nutritional genetics and genomics, and metabolism, which is crucial for devising individualized dietary recommendations for the promotion of health and prevention of chronic disease. The Department of Nutritional Sciences offers a 12-credit online graduate certificate program in Precision Nutrition. The program is designed for individuals working in healthcare, private practice, and industry and provides advanced knowledge in human nutrition, nutritional genetics and genomics, and metabolism. The certificate's integrated curriculum establishes the foundation essential to developing individualized dietary recommendations for the promotion of health and prevention of chronic disease.

Requirements: NUSC 5200, 5300, 5700 and one 5000- or 6000-level NUSC elective

Faculty Involvement

Ji-Young Lee, Professor and Head o Nancy Rodriguez, Professor o Christopher Blesso, Associate Professor, Graduate Program Coordinator o Catherine Andersen, Associate Professor o Sangyong Choi, Assistant Professo

Enrollment and graduate projections
We anticipate graduating 12-15 students per year when the program matures in 3-5 years.

Program Evaluation
The program will be evaluated through the following indicators: 1) Course evaluations: we will examine course evaluations for all of the courses that are part of the degree program. 2) We will conduct an annual anonymous survey of enrolled students to gauge their level of satisfaction and engagement and seek feedback about possible areas of improvement and change. 3) Degree completion: we will monitor the percentage of participants who complete the degree in a timely fashion, Exit interviews will be conducted with any student withdrawing from the program to identify the reasons for the withdrawal. 4) Destination and Alumni surveys: online surveys for graduates to gather data regarding their employment, satisfaction with the program

Program Administration
The program will be administered by the Graduate School and the Department of Nutritional Sciences. Dr. Chris Blesso, the Graduate Program Committee will manage admissions and Dr. Catherine Andersen will provide student advising and program oversight

Funding and Financial Resources Needed
No additional funding or financial resources is requested at this time. This program is designed to be entrepreneurial and net revenue positive.

Other Resource Needs
This is a fully online program. All courses for this new graduate certificate programs have been/will be developed for MS in PN program. Therefore, there are no additional resources needed for course development. If approved, CETL has committed to providing marketing strategy and web page design, and assistance with setting up the enrollment management funnel and processes

Consultation with other potentially affected units
None

Who can apply to this program?
Internal applicants (current UConn students enrolled in another UConn degree or certificate program)
External applicants (individuals who are not currently UConn students)

Anticipated term and year of first enrollment
Fall 2022

Admission Requirements
Baccalaureate degree with a minimum 3.0 GPA
 Requirement: College-level biochemistry or equivalent
 Recommended Course Preparation: College-level physiology and nutrition
Required for application:

- Personal Statement
- Other
    - Official transcripts
    - TOEFL where required

Term(s) to which students will be admitted

- Fall
- Spring

Application deadline: Unsure at this time

Initiator
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Program Director Name
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