

TOPIC: RECOMMEND APPROVAL OF MASTER OF SCIENCE IN EXERCISE AND SPORT SCIENCE – HIGH ALTITUDE EXERCISE PHYSIOLOGY AT WESTERN STATE COLORADO UNIVERSITY

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I. SUMMARY

This item recommends approval for Western State Colorado University (WSCU) to offer a Master of Science in Exercise and Sport Science – High Altitude Exercise Physiology.

II. BACKGROUND

COMMISSION AUTHORITY

The Colorado Commission on Higher Education’s role and responsibility in the review and approval of new academic programs at institutions operating under a performance contract is defined in §23-5-129(6)(b), which states that new and modified program proposals shall be reviewed and approved only on the basis of fit with the institution’s statutory role and mission.

III. STAFF ANALYSIS

OVERVIEW OF PROPOSED PROGRAM

The following is summarized from WSCU’s proposal:

Western’s High Altitude Exercise Physiology (HAEP) students will focus on either performance or clinical environmental exercise physiology, integrating on-campus resources, such as the High Altitude Performance Lab (HAPLab), Center for Wellness and Human Performance (CWHP), Mountaineer Field House, as well as the broader local environment and its unique conditions such as our many 13- and 14-thousand foot peaks, extreme temperatures, and low humidity. Students in this program may work with a variety of elite athletes, recreational athletes, general exercisers, or clinical (diseased) populations, for instance, people with diabetes, cardiovascular disease, pulmonary disease, obesity, and/or cognitive and physical disabilities under various conditions. These conditions may include but are not limited to rest, recreational exercise, and therapeutic exercise.

To complete the HAEP program, students will take a total of 36 credits (including six thesis credits). Coursework will consist of a common core curriculum as well as elective courses. Students will have completed coursework by the end of the fall semester of their second year. The thesis will be completed and defended by the end of the second semester of the second year. Most coursework will be taken during the traditional academic year. The summer between the first and second year may be used to complete a practicum, internship, independent study, pilot study, or gather information for the Thesis Proposal. Each student will be matched with a graduate faculty advisor/mentor by the end of their first semester.

Additional information on this proposed degree, unrelated to fit with statutory role and mission, is in Appendix A.

ROLE AND MISSION SUPPORT

This degree supports WSCU's statutory role and mission, which states:

There is hereby established a university at Gunnison, which shall be known as Western state Colorado university. Western state Colorado university shall be a general baccalaureate institution with moderately selective admission standards. Western state Colorado university shall offer undergraduate liberal arts and sciences, teacher preparation, and business degree programs, basic skills courses receiving resident credit pursuant to [section 23-1-113.3](#), and a limited number of graduate programs. Western state Colorado university shall also serve as a regional education provider. [§23-56-101, C.R.S.]

Pursuant to Colorado Revised Statutes 23-5-129(6)(b), department staff finds that UCB's proposed degree is consistent with the institution's statutory role and mission. WSCU's governing board approved the program at its September 11, 2014 meeting.

IV. STAFF RECOMMENDATION

Staff recommends that the Commission approve Western State Colorado University's proposal to offer a Master of Science in Exercise and Sport Science – High Altitude Exercise Physiology.

STATUTORY AUTHORITY

C.R.S. §23-5-129 Governing boards - performance contract - authorization – operations

(6) While operating pursuant to a performance contract negotiated pursuant to this section, the governing board of a state institution of higher education:

(b) Need not consult with nor obtain approval from the Colorado commission on higher education to create, modify, or eliminate academic and vocational programs offered by the institution, so long as such creations, modifications, and eliminations are consistent with the institution's statutory role and mission. Institutions shall submit information to the department demonstrating that the creation or modification of an academic or career and technical education program is consistent with the institution's statutory role and mission. The Colorado commission on higher education shall have the authority to override the creation or modification of an academic or vocational program if the change made by the governing board is inconsistent with the institution's statutory role and mission.

APPENDIX:

Appendix A: Supplemental Information

APPENDIX A: SUPPLEMENTAL INFORMATION

This supplemental information is unrelated to the proposed degree's fit with the institution's statutory role and mission. The following is summarized from the institution's proposal:

EVIDENCE OF NEED

Offering a residential master's program with a focus on exercise and performance at altitude will allow us to capitalize on existing program and faculty strengths as well as outstanding facilities, and will enable us to offer to our undergraduates, as well as graduates from across the nation, a one-of-a-kind destination program with rigorous, research-focused curricula in exercise physiology. The program will prepare graduates for advanced careers in academia, research, or clinical practice as well as further education at the doctoral level. Nationally, this HAEP program is unique in that it examines how the human body functions physiologically in a high altitude environment.

Exercise and Sport Science is among the most popular undergraduate programs on campus (3rd most popular major at Western in 2012 with ~230 majors & minors). This is consistent with national trends showing increased interest in "kinesiology" as an academic area of study, along with the popularity of related post-graduate allied health programs such as physical therapy, athletic training, and physician's assistant. Direct need for ESS professionals nationwide has increased over the past several years as well. Bureau of Labor Statistics relevant for the ESS-related master's program- shows a growing demand by 24% between 2010 – 2020.

Given national discourse surrounding wellness, physical activity, and obesity, it is expected that there will be continued need for graduates in ESS-related fields, both graduate and undergraduate. Additionally, employment growth for post-secondary teachers (professors in all disciplines) is expected to grow 17% from 2010 to 2020 (Bureau of Labor Statistics).

DUPLICATION

Colorado State University – Fort Collins offers a Master of Science degree in Health and Exercise Science (HES) (concentrations include Exercise Science and Nutrition).

University of Northern Colorado – Greeley offers a Master of Science degree in Sport and Exercise Science (SES) with emphases in biomechanics, exercise physiology, and social psychology of sport and physical activity.

University of Colorado – Boulder offers a Master of Science degree in the Department of Integrative Physiology.

Adams State University – Alamosa offers a Master of Arts (Science) degree in Human Performance and Physical Education.

University of Colorado – Colorado Springs (UCCS) offers a Master of Science in Biology with an Exercise Science Emphasis.

The proposed MS program at Western is in line with other programs in terms of credit load, entry requirements, much of the required coursework, and the thesis requirement. Where the HAEP program diverges from the programs listed above is in its focus and the characteristics of our location. Most of the programs in exercise physiology examined are geared toward health promotion and research in healthy and diseased populations from an exercise science perspective. The HAEP program is also interested in different populations (including athletes, healthy individuals, and diseased or special populations) but with an emphasis on the study and research of exercise physiology at altitude. At an elevation of 7769 feet, Western has the chance to offer the only graduate program in Exercise Science of its kind in Colorado and, indeed, in the United States.