

Contact: Rachel Boon

**REQUEST FOR NEW PROGRAM AT THE UNIVERSITY OF IOWA: BACHELOR OF
SCIENCE IN EXERCISE SCIENCE**

Action Requested: Consider approval of the request by the University of Iowa for a bachelor of science in exercise science in the College of Liberal Arts & Sciences.

The Council of Provosts and Board office support approval of this program.

Description of proposed program. The College proposes to revise the three tracks that now exist within the health and human physiology major [awarded with a bachelor of arts (BA)] into three stand-alone majors. The change is requested to reflect the significant STEM semester hours in the exercise science and health promotion tracks.

The proposed exercise science major is a 48-50 semester hour (s.h.) program that provides focused study in physical fitness, physical activity, sport nutrition and sport conditioning as they pertain to health and performance outcomes. The curriculum has been approved by the American College of Sports Medicine (ACSM) as meeting the academic preparation for certification as an ACSM certified exercise physiologist and ACSM certified personal trainer. It also prepares students for certification by the National Strength and Conditioning Association as a certified strength and conditioning specialist and certified special population specialist. The strong physiological science-based curriculum can serve as preparation for professional or graduate study in rehabilitation sciences, performance sciences or medical fields.

The proposed exercise science major fulfills the requirements for a bachelor of science (BS) degree set forth by the College's Undergraduate Educational Policy and Curriculum Committee. That is, foundational sequenced courses are required in math or statistics, and in chemistry and biology, with the curriculum building on this foundation and with fewer electives allowed than for the usual BA program. Labs are required for work in this major, with lab experiences and upper-level courses helping to integrate foundational knowledge with advanced work.

Academic objectives. The objectives of the proposed exercise science BS will allow students to:

- Undertake focused study in physical fitness, physical activity, sport nutrition and sport conditioning as they pertain to health and performance outcomes.
- Use and understand scientific methods to approach and solve problems in exercise science.
- Effectively communicate physical wellness issues to key stakeholders.
- Encourage life-long learning in the rapidly evolving fields of exercise science.

Relationship to existing programs at the institution. The proposed program will continue to align with the college and university's strategic plan in the areas of teaching and student success. The program combines research with teaching while supporting students' goals.

Pending approval, the UI Department of Health and Human Physiology also plans to convert the other two tracks to stand-alone majors – BS in health promotion and BA in health studies. The BS in Exercise Science will complement these other two programs with a different set of required core courses that focus on the biomechanics and psychology of sport and physical activity, metabolic and musculoskeletal exercise testing and prescription, and sport and exercise nutrition.

Relationship to existing programs at other colleges and universities. Iowa State University offers a BS in diet and exercise (with a combined MS degree option available). At Iowa State, students majoring in kinesiology and health may select one of five options for a concentration, including public and community health; health promotion; or exercise science. The University of Northern Iowa offers a BA in athletic training and rehabilitation studies and minor in strength and conditioning. UNI additionally offers a movement and exercise science major that “prepares students for careers in such diverse areas as the fitness industry, college or university strength and conditioning programs for athletes, hospital or business wellness programs, and sport psychology as well as for more advanced professional degrees such as physical therapy and chiropractic medicine”. Many private institutions in Iowa also offer similar programs.

The proposed BS in exercise science will offer students an excellent, well-rounded curriculum that includes course work in physical fitness, physical activity, sport nutrition, and sport conditioning. Faculty have specializations in both exercise science and health promotion, working across these areas and thus providing a unique perspective on related topics. Students will benefit from excellent experiential learning opportunities offered by the Department of Health and Human Physiology in partnership with the University of Iowa Athletics Department, the University of Iowa Campus Recreation and Wellness program, and with the many research labs at the university.

Additionally, because of the need for these majors as related to the future work force and careers, it is appropriate for different institutions to offer these programs of study, making them widely available in a range of locations.

Resources to establish a high-quality program. The university currently offers all related courses and labs needed to support the proposed stand-alone BS in exercise science and also has adequate facilities and personnel needed for this program.

The university provides excellent health and wellness facilities to support instruction and research in this area of study. Cooperative efforts with other units facilitate specialization by allowing Department of Health and Human Physiology students to use these additional special facilities and research equipment in other departments on campus (e.g., biology, biochemistry and molecular biology, molecular physiology and biophysics, orthopedic surgery, internal medicine, pharmacology, and those in the College of Engineering).

Student demand. Exercise science has been an established track within the BA in health and human physiology over the last eight years and it is anticipated the students who enroll in the exercise science BS will be those currently enrolled in that track of the health and human physiology BA. The proposed major will also be a destination major for new students.

Workforce need/demand. Students graduating in this area are prepared to work in the fitness/performance professions, with strong job outlooks particularly for fitness trainers, sport coaching and recreation workers. Graduates are also prepared for entrance into graduate and professional programs leading to careers in fast-growing health professions, including physical therapy, occupational therapy and exercise physiology. (Source: US Bureau of Labor Statistics, 2019).

The push for STEM education corresponds to above-average projected growth in STEM related jobs. According to the U.S. Department of Labor, Bureau of Labor Statistics, STEM jobs are predicted to grow at a faster rate than the total job average: a projected growth of 13% between 2012 and 2022. The U.S. Department of Commerce has reported that STEM jobs grew at three times the average rate from 2000-2010; moreover, from 2008-2018, they are predicted to grow at 17%, twice the rate of non-STEM jobs.

Funding and Cost. No further resources are needed given that the curriculum for exercise science is already offered with the current track and the faculty and staff necessary to administer the program are already in place.

Projected student enrollment. The current exercise science track provides a good estimate of how many students will be annually enrolled in the program.

	Y1	Y 2	Y3	Y4	Y5
Undergraduate	440	440	440	440	440

Accreditation. Accreditation is not offered in this field. However, the exercise science curriculum has been approved by the American College of Sports Medicine (ACSM) indicating it prepares students to become an ACSM certified exercise physiologist or an ACSM certified personal trainer. The National Strength and Conditioning Association has also certified that this curriculum prepares students for becoming a certified strength and conditioning specialist and certified special population specialist.

Date of implementation. Fall 2022.

Letters of Support



Office of the Dean

January 12, 2022

Dr. Cornelia Lang
Associate Dean for Undergraduate Education
College of Liberal Arts and Sciences
University of Iowa

Dear Dr. Lang,

Please accept this letter of consultation and support on behalf of the University of Northern Iowa College of Education in regard to the proposed redesign of the Health and Human Physiology (HHP) major in the Department of Health and Human Physiology. Along with our Department of Kinesiology and Department of Health, Recreation and Community Services, we have reviewed your proposal and offer our support for the revision.

We wish you well as you continue to develop this new curriculum.

Sincerely,

A handwritten signature in black ink, appearing to read "Colleen S Mulholland".

Colleen S Mulholland, Dean

A handwritten signature in black ink, appearing to read "O. Grybovych Hafermann".

Oksana Grybovych Hafermann, Associate dean for academic affairs

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

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May 7, 2020

Helena Dettmer
Associate Dean for Undergraduate Programs and Curriculum and the Humanities
College of Liberal Arts and Sciences
120 Schaeffer Hall
The University of Iowa
Iowa City, IA 52242-1409

Dear Dean Dettmer,

Thank you for your note requesting input on the University Iowa's proposed BS majors in *Exercise Science*, *Health Promotion* and BA major in *Health Studies*. I have shared your request with ISU's College of Human Sciences as that is the home of the BS degree in *Kinesiology and Health*. The College of Human Sciences degree program also features multiple options, including Exercise Science and Physical Activity and Health Promotion, and has much in common with the University of Iowa programs.

We support the three proposed majors and understand that the request is simply a natural evolution of the program from curriculum tracks to degree pathways. It is important that students graduate with the credential that best represents their expertise to future employers and graduate programs. There is no doubt that the demand for well-prepared students in the broad field of health studies will continue to grow.

ISU's Colleges of Human Sciences and Liberal Arts and Sciences appreciated the opportunity to review the proposal. We look forward to future faculty and student collaborations in the area of exercise sciences, health promotion and health studies. If we can be of further assistance, please let me know.

Sincerely,



Amy R. Slagell
Associate Dean for Academic Programs
College of Liberal Arts and Sciences
Iowa State University
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Robert D. Reason
Associate Dean for Undergraduate Academic Affairs
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