

Title of Proposed Degree
Bachelor of Science in Exercise Physiology

Degree Designation
Undergraduate Degree, Bachelor of Science

Department of Health and Sports Sciences
College of Education and Human Development

Projected Implementation Date
Fall 2024

Contact
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Interim Assistant Departmental Chair & Exercise Science/Physiology Program Coordinator

Accreditation/Licensure Requirements
Commission on Accreditation for Exercise Sciences
Commission on Accreditation of Allied Health Programs
NSCA Education Recognition Program
Council for the Accreditation of Educator Preparation (CAEP)
Kentucky Educational Standards Board (EPSB)

Lead Fiscal Officer's Confirmation

The signature below indicates the Lead Fiscal Officer's approval of this letter of intent and included budget calculations.

Lead Fiscal Officer's Signature: Freddy S. Rodriguez Digitally signed by Freddy S. Rodriguez
Date: 2023.04.05 13:01:14 -04'00' **Date:** 04/05/2023

Dean's Confirmation

The signature below indicates the Dean's approval of this letter of intent and related financial commitments.

Dean's Signature: Amy Lingo Digitally signed by Amy Lingo
Date: 2023.04.10 09:05:51 -04'00' **Date:** 4/10/2023

I. Program Abstract

The College of Education and Human Development proposes a new Bachelor of Science Undergraduate degree in Exercise Physiology (CIP code 26.0908). As a four-year STEM (Science, Technology, Engineering, & Mathematics) program, this degree will prepare students for careers in health and human performance fields. The Exercise Physiology program will replace the current Health and Human Performance (HHP) undergraduate degree, which has an already successful track in *Exercise Science*. This track is one of the largest programs at the university (500 students) and was designated as the #1 Sports Science Bachelor's Programs in the country in 2021. The Exercise Science track generates over \$4.2 million annually in tuition revenue, making it an excellent candidate for a full degree program. Additionally, the degree offers a track in Physical and Health Education that uniquely provides students with an opportunity to obtain K-12 dual teacher certification. The proposed program curriculum builds upon the existing HHP coursework, and will be supplemented to provide students with a deeper and more comprehensive understanding of human physiology, as well as mechanisms by which exercise initiates structural and functional adaptations at the biochemical, physiological, and biomechanical levels. Students who receive this degree will be prepared to enter the workforce as exercise specialists and have the skillset necessary to be successful in graduate-level allied health professional programs. This degree emphasizes hands-on, practical application and experiential learning opportunities to provide students with the necessary skills for certification success and immediate work placement following graduation. Students can customize their undergraduate experience to fulfill long-term career goals by completing one of the following tracks: a) Allied Health Therapies; b) Human Performance; or c) Physical and Health Education.

II. Educational Program Objectives

This program will provide scholars with an engaging and application-based curriculum that will prepare them to be leaders and health advocates dedicated to enhancing the quality of life for individuals in their communities. With this degree, students will be able to enter the workforce immediately following graduation as health advocates, fitness experts, strength and conditioning specialists, athletic trainers, research technologists, teachers, and various allied health support technicians. Further, this program will prepare students for admission into professional graduate programs in rehabilitation sciences and medicine (physical & occupational therapy, medical & dental school, physician assistants, etc.).

Admission Requirements

Admission requirements for the Undergraduate Exercise Physiology degree will mirror those requirements for admittance into the College of Education and Human Development. Students applying with at least 24 credit hours will be admitted in good standing if their cumulative GPA is 2.25 or above. Students may be admitted in conditional status if they have at least 24 credit hours and their cumulative GPA falls between 2.0 – 2.24. Students admitted in conditional status will be limited to enroll in no more than 14 credit hours per semester (10 hours during the summer).

Retention Requirements

Students who have a cumulative undergraduate GPA of at least 2.25 will be considered to be in good academic standing.

Academic Warning: After completing 12 degree-applicable hours at the university, students who either have a cumulative undergraduate GPA below 2.0 will be placed on Academic Warning. Students on Academic Warning may enroll in no more than 14 credit hours per semester (10 hours during the summer).

Academic Probation: In any semester subsequent to an academic warning, students whose cumulative undergraduate GPA falls below 2.0 will be placed on Academic Probation for the next semester of enrollment. Students on Academic Probation will continue to be limited to enroll in no more than 14 credit hours per semester (10 hours during the summer). Students who earn less than a cumulative GPA of 2.5 in the academic probation semester will be immediately placed on Academic Suspension.

Academic Suspension: Students on Academic Suspension will be required to sit out from the College of Education and Human Development for at least one semester. The student may apply to another unit. Students suspended after a spring semester must sit out the following summer and fall semesters. Students who are suspended for a third time from the College of Education and Human Development are academically dismissed. A student who has been dismissed from the

College of Education and Human Development may apply for readmission after one full year. Readmission of suspended or dismissed students is not guaranteed. Conditions of readmission will be up to the discretion of the College of Education Standards and Admissions Committee.

Graduation Requirements

To complete the Bachelor of Science in Exercise Physiology degree, students must meet the following criteria: 1) completion of at least 120 credit hours with a minimum of 60 credit hours earned at a 4-year university; 2) minimum cumulative GPA of at least 2.25; 3) minimum grade of C- in Exercise Physiology core and track-specific courses; 4) successful completion of an Exercise Physiology Internship or Research Project; 5) minimum of 50 credit hours earned at the 300-level or above; and 6) completion of 30 of the last 36 hours and 25% of classes taken overall at the University of Louisville.

Curriculum

The proposed curriculum will provide students with foundational knowledge in human and exercise physiology while also giving them the opportunity to apply what they've learned to real-world scenarios and problems. The curriculum is designed to progressively build critical thinking skills and afford students with skill sets that are required for immediate entry into careers in human performance, athletic training, individual and corporate health/wellness, education, and exercise rehabilitation. Further, the proposed curriculum will also prepare students for terminal and professional degrees in allied health sciences, with many students pursuing graduate credentialing in Medicine, Physical Therapy, Occupational Therapy, and Dentistry. As such, we have allotted space in the degree tracks to allow for enrollment in various professional program pre-requisite courses (Physics, Chemistry, Biology, etc.), which will allow students to complete their undergraduate degree in a timely, four-year fashion.

This program will focus on the scientific study of the physiological processes involved in physical/motor activity, including sensorimotor interactions, response mechanisms, and the effects of injury, disease, and disability. Course objectives will deliver a strong foundation in muscular and skeletal anatomy, molecular and cellular basis of muscle contraction, fuel utilization, neurophysiology of motor mechanics, systemic physiological responses (respiration, blood flow, endocrine secretions, and others), fatigue and exhaustion, muscle and body training, physiology of specific exercises and activities, physiology of injury, and the effects of disabilities and disease. The majority of courses in the proposed degree are already approved classes and currently being taught in the HHP major. However, course learning objectives may be adjusted in some classes to ensure accreditation standards are met for the new degree program. Other courses, which are approved but not required classes in the HHP degree, will also be added to students' degree tracks. These courses include basic didactic lecture courses, laboratory/hands-on application courses, and community-based learning opportunities or internship courses. A summary of *new* courses to be developed can be found below.

List of New Courses to be Developed:

Category	Course Name	Credit Hours	Course Number Designation
Major/Core	Introduction to Exercise Physiology	3	200 Lower-Level Course
Specialty/Track-Specific	Advanced Biomechanics	3	400 Upper-Level Course
	Neuromuscular Aspects of Human Performance	3	500 Upper-Level Course

Course Descriptions:

Introduction to Exercise Physiology: This course is designed to answer the most basic question – What is Exercise Physiology? The concept of homeostasis will be analyzed in detail, followed by a wide overview of how exercise poses a challenge to homeostasis. Next, an overview of physical activity, or lack thereof, and how it relates to chronic disease will

be presented. The course will specifically review the most common chronic diseases of modern times (heart disease, metabolic syndrome, etc.). Finally, an in-depth look at the various career paths available to individuals with a degree in Exercise Physiology will be examined, with guest speakers invited to speak about specific jobs/careers. Additional specific topics will include: A Systems-Base Approach to Exercise Science; History of Exercise Physiology; Clinical Exercise Physiology; Exercise and Sport Nutrition; Exercise and Sport Psychology; Equipment and Assessment in Exercise Science; and Careers and Professional Issues in the Field

Advanced Biomechanics: This course will provide students with advanced knowledge of biomechanical factors and concepts that allow one to assess human movement. Students will employ various methodologies in the field of biomechanics to study motion (linear and angular kinematic analysis), forces (kinetic analysis), muscle activation (electromyographic analysis), energy, work, and power production during various human performances. Pre-requisite: HSS 387 Biomechanics.

Neuromuscular Aspects of Human Performance: This course provides an in-depth exploration of neuromuscular structure and function in respect to control of exercise and human movement, specifically as it relates to human performance and athletic adaptation. Emphasis will be placed on bioenergetics, muscle plasticity, neural control of exercise, acute responses and chronic adaptations to various exercise training, and a variety of neuromuscular disorders. Pre-requisite: HSS 394 Foundations of Exercise Physiology.

Distance Education:

While this is a face-to-face degree program, some courses will be made available in online formats as needed.

Interdisciplinary Collaboration:

Careers in the field of Exercise Physiology (specifically careers in human performance and the allied health arena) are inherently interdisciplinary and incorporate diverse skillsets and collaboration from many different specialists. While most major and track-specific courses will be administered by faculty within the department, some course curriculum will necessitate qualified instructors with specific skillsets and credentialing from other units within U of L and from the community. For instance, the Exercise Physiology program will utilize faculty and staff from U of L Athletics and U of L Health to teach courses in strength & conditioning, sports nutrition, athlete data management, and injury prevention (HSS 388 Foundations of Strength & Conditioning; HSS 389 Prevention & Care of Athletic Injuries; HSS 506 Athlete Monitoring and Data Management; HSS 530 Nutrition for Athletic Performance). Students pursuing this proposed degree will also have the option to complete various STEM-related course electives for entry into allied health professional programs. Specifically, students may complete courses in Biology (BIOL 240, 242, 244, 329, among others), Physics (PHYS 221, 222, 223, 224), Psychology (PSYC 201), Chemistry (CHEM 201, 202, 207, 208, 209, 341, 342, 343, 344, 445), and Mathematics (MATH 109, 111, 205).

The Exercise Physiology program will also continue to cultivate partnerships with entities outside of our department and the university to afford students with experiential learning opportunities to bolster career readiness. Students will have the opportunity to complete research projects, honor's theses, observational/volunteer activities, and internships/fellowships with faculty and staff in U of L Athletics Strength and Conditioning, U of L Sports Nutrition, the Christina Lee Brown Envirome Institute, the Kentucky Spinal Cord Injury Research Center, Frazier Rehabilitation, U of L Intramural and Recreational Center, local elite high schools and performance facilities, clinics and hospitals, Louisville Metro Police Department and SWAT Team, and the Louisville YMCA, among others.

Additionally, as the university works to increase the number incoming KCTCS students seeking to complete four-year degrees, our program faculty will continue to serve as mentors in the "Bridges to Undergraduate Success" program. This initiative provides monetary stipends and course credits to minority students from community colleges for their work on research projects with faculty.

III. Linkage with the Mission and Strategic Plans

The Exercise Physiology program will directly align with the University's Mission as the University of Louisville pursues excellence and inclusiveness in its work to educate and serve its community through:

- 1) *Teaching diverse undergraduate students to develop engaged citizens, leaders, and scholars:* The existing HHP degree will serve as a pipeline for students entering the Exercise Physiology degree program. Our student body will include a diverse group of undergraduate students (see below) who are being taught by national and international renowned scholars in a variety of settings. Faculty in our program participate in the *Cardinals Anti-Racist Agenda (CARA)*, an institutional effort to improve recruitment and retention of students from different racial representation and are active members of the *Commission on Diversity and Racial Equity (CODRE)*. Additionally, our data illustrates that 98% of our previous Exercise Science students passed a Culminating Experience in recent years (e.g., internship, mentorship, research project) and our Employer Surveys showed an employer satisfaction rate of 98%, together indicating that our faculty are capable of producing well-prepared citizens with high employer satisfaction and employability (81% employability in 2019-2020) in the proposed program.
- 2) *Practicing and applying research, scholarship and creative activity:* Students in the Exercise Physiology program will participate in various forms of creative activity, scholarship, and research as part of the degree requirements. Because of the nature of the proposed program, we will be able to provide our students with meaningful basic, applied, and translational research experience in the areas of clinical rehabilitation, exercise and human performance, and physiology. Over the years, several undergraduate students in Exercise Science have actively participated in research, published in high impact research journals, and presented in seminars and national conferences. These efforts will continue to create new knowledge, accelerate innovation, and promote new economic growth.
- 3) *Providing engaged service and outreach that improve the quality of life for local and global communities:* Experiential learning will be presented in the form of independent studies, internships, and community-engaged activities such as outreach and collaborative experiences in local hospitals, clinics, fitness facilities, and schools. As an example, faculty have formed collaborative outreach and research programs in local elementary and middle schools belonging to Jefferson County Public Schools (JCPS), all of which will continue to involve student participation. Future students who complete the Exercise Physiology degree will be required to participate in internships and service-related activities as part of the matriculation process, thereby improving their local communities

Likewise, the Exercise Physiology program directly aligns with the mission of the College of Education and Human Development to be a top-tier national metropolitan college in teaching, research, service, and stewardship:

- 1) *Engage in teaching practices that prepare education and human development professionals with the knowledge, skills, abilities, and dispositions to achieve their career goals in a diverse society:* The Exercise Physiology program is led by top-notch researchers and teaching faculty with extensive and diverse experience in academia and industry. Through hands-on/application-based instruction and mentorship, our students will become well-prepared and functioning members of society. Further, the faculty will remain committed to promoting excellence through their own improvements in teaching and learning. To date, our faculty members are well known for receiving awards and recognitions for their teaching practice. Our faculty receives annually several awards including: *UofL Faculty Favorite* (student nominations), *UofL Red and Black Mentor* (athlete student nomination), and *Outstanding Mentor* (student researcher). Additionally, faculty have received teaching awards from the American Physiological Society (APS) and the fellowship recognition from the American College of Sport Medicine (ACSM).
- 2) *Develop our research and scholarship to meet and exceed levels achieved by regional competitors and ACC benchmark institutions:* Research faculty in the Exercise Physiology program will continue to produce high-quality, impactful research products. Currently, our faculty are members of multiple on-campus entities and national/international agencies devoted to various research efforts. The Exercise Science research faculty have maintained high research productivity in their areas of expertise. Despite having very little support (monetary and equipment/start-up support) from the college overall, our faculty continue to publish relevant research manuscripts in high-impact journals, apply for and receive extramural funding, and present their research all across the world. Total extramural funding awards

for current faculty over the past four years are listed below – it is important to note that these numbers do not include grant dollars for which faculty are co-investigators nor do they include instances where other departments have bought out faculty time for research (and thus paid portions of faculty salaries). Each semester, students have the opportunity to participate in clinical and community-based research and fitness evaluations with faculty. Engaging students in these activities often promotes student publications and presentations to support their professional and academic development. For instance, our faculty published 57 original works in 2019. Of those publications, 31 had student authors. Furthermore, nearly all of our Exercise Physiology research faculty members have joint appointments in other departments and colleges. These include appointments at Frazier Rehabilitation Institute and the Kentucky Spinal Cord Injury Research Center, University of Louisville School of Medicine, the Christina Lee Brown Envirome Institute, and the Wendy Novack Diabetes Center. These joint appointments provide students additional opportunities for interdisciplinary scholarship, research, and outreach activities.

Total Extramural Funding Received by Exercise Physiology Faculty

Extramural Funding	2017-2018	2018-2019	2019-2020	2020-2021
<i>Grants Submitted</i>	9	12	11	13
<i>Grants Funded</i>	6	7	6	4
<i>Total Awarded</i>	\$ 542,335	\$ 827,388	\$ 715,167	\$ 858,932

Note: Data represents current faculty only. Previous faculty research funding is not included in the table.

Total Publications by Exercise Physiology Faculty

Publications	2017-2018	2018-2019	2019-2020	2020-2021
<i>Total Publications</i>	36	41	57	48
<i>Publications with Student Authors</i>	23	27	31	28

Note: Data represents publications of peer-reviewed manuscripts from current faculty only (conference/poster presentations, book chapters, opinion pieces, etc. are not included). Previous faculty publications are not included in the table.

- 3) *Transform our education communities through positive collaborations and provide the highest levels of learning for all students through community engagement partnerships and outreach:* The Exercise Physiology program has partnerships with numerous prestigious entities and community associates that will provide our students with critical knowledge and experience through community collaboration and engagement. As part of the Exercise Physiology degree program, students will be required to work with members of the community through a culminating experience/internship. Students in our Human Performance track will have the option of working with leading athletic populations including U of L Athletics, Norton Sports Performance, and Trinity and St. Xavier high schools, among others. Students interested in the Allied Health Therapies track will have the opportunity to provide patient care and rehabilitation services to clients in local hospitals (U of L Hospital, Baptist Health, and Norton), private clinics (ProRehab, KORT Physical Therapy, Heuser Health, Trilogy Health Services, etc.), and medical research facilities (Kentucky Spinal Cord Research Center and Frazier Rehabilitation, Christina Lee Brown Envirome Institute, Wendy Novak Diabetes Center, etc.). Additionally, students in the Physical Education track will be required to complete numerous hours inside JCPS schools. This immersive style of education will not only give them important hands-on training and experience, it will also provide the community with a much-needed service.

Additionally, the Exercise Physiology program also runs a community-based fitness testing program with the help of our Graduate Program in Exercise Physiology. The Exercise Physiology Laboratory space in the Department of Health and Sport Sciences offers the most precise and science-based performance and body composition testing protocols available. The Fitness Evaluation Program (FEP) gives our students the opportunity to interact with members of the Louisville community to provide fitness and exercise testing evaluations for a nominal fee. The information gained from this testing gives people an accurate picture of where they are regarding their health and fitness. Not only does this afford our students the chance to gain hands-on, real-world experience in a controlled, teaching setting, it is also an important service to the community. Each year, revenue generated from the FEP allows Exercise Science faculty to purchase laboratory/research and teaching items such as cleaning supplies, anatomical models, and smaller laboratory equipment (microscopes, pulmonary function testing equipment, cardio equipment, etc.). Recently, the

Exercise Physiology faculty began providing services to first responders, primarily Louisville Metro Police Department and SWAT team.

- 4) *Diversity, Equity, and Social Justice – Develop an infrastructure that operates under the expanded definition of diversity which promotes a social justice orientation and a vision of a society in which the availability of opportunities is equitable.* Our student body will include a diverse group of undergraduate students (see below) who are being taught by national and international renowned scholars in a variety of settings. Faculty will continue to recruit and work to retain students from diverse backgrounds and experiences. This program will also afford students, through internship placement and community-based research projects, the opportunity to work with community partners and local business in a variety of settings and professions. In order to recruit and retain diverse students, we will continue to make the following strategic actions:
- a. We will continue to review our curriculum and each syllabus to avoid any racist or non-inclusive language;
 - b. We will prioritize recruitment and transferring: “The Playbook- A Guide to Assist Institutions of Higher Education in Evaluating Racial-Ethnicity Neutral in Support of the Mission-Related Diversity Goals” (Coleman et al, 2014) recommends the use of transferring in order to increase recruitment and diversity: “*Institutions seeking greater racial and ethnic diversity may use student transfer as a mechanism to attract students that they may not reach through the freshman admission process, but are still academically qualified for the institution's programs. Community colleges and minority-serving institutions, for example, are home to significant populations of minority and first-generation students.* In order to do so, faculty in our program are mentors in a university-wide project called *Bridges to Undergraduate Success (BUS)* Funded by National Institute of Health (NIH) - R25. In this program, our faculty mentor minority students from local community colleges to perform research and create competencies for an easy transition to our program. Many of these students attending community college are low income or first-generation college students.

Further, faculty will continue to contribute to the economic and social welfare goals of House Bill 1 (HB1) as follows:

Objective #1: Improve the diversity and inclusiveness of Kentucky’s campuses through the statewide diversity planning process and related initiatives: Faculty in our program participate in the creation of the Cardinals Anti-Racist Agenda (CARA) that is an institutional effort to improve recruitment and retention of students from different racial representation. Additionally, faculty in our program are active members of the Commission on Diversity and Racial Equity (CODRE). Our program is attractive to students in the LGBTQ community and the military. Our program and department were one of the first in the university to have gender neutral bathrooms. Members of our faculty have also received the LGBTQ Affirming Healthcare Series certification for their commitment to advancing health equity.

Objective # 2: Partner with Kentucky’s P-12 system to increase the number of students ready to enter a postsecondary degree or certification program: Even though we do not have a formal agreement, faculty have developed outreach programs in local public schools as well as perform research among elementary and high schools belonging to Jefferson County Public Schools (JCPS). Members of our faculty serve on advisory and community participatory boards within our school district on physical education, health education, recess, and after school physical activity programming and policy reviews.

Objective #3: Increase participation in postsecondary education, particularly among traditionally underserved populations: Our faculty will continue to work with community-based organizations and partners to improve college and career awareness through outreach initiatives.

Objective #6: Increase persistence and timely completion for all students at all levels, particularly for low-income and underrepresented minority students: Currently, the Exercise Science track has admirable graduation rates for a STEM-related program. It is important to note that many of our students are taking extra courses (outside of the major courses needed to graduate) to fulfil pre-requisite requirements for entry into allied health graduate programs, thus delaying a four-year graduation. Members of our faculty offer independent study focused research

projects for students as a means to build connection between students and faculty as well as bolster students' resumes.

Exercise Science Graduation Rates	4 Year	5 Year	6 Year	Average
<i>Percentage</i>	89%	109%	82%	91%

Objective #7: Increase the number of KCTCS students who complete career-oriented certificates and associate degree programs and successfully transfer to four-year institutions: We will continue to accept a large number of transfer students into our program, and we will work individually with each future student for an easy transition and transfer to our degree. Importantly, faculty in our program serve as mentor on the “Bridges to Undergraduate Success” that provide stipend and credits to minority students from community college to work with researchers in a project. Research shows that students familiar with faculty and involved in research projects are more likely to successfully finish undergraduate education. Minority students are more likely to succeed when their mentors are also member of minority ethnic or racial representation. Members of our faculty engage in Summer Research Opportunity Programs in which students receive a stipend and are partnered with and mentored through a research experience.

Objective #8: Promote academic excellence through improvements in teaching and learning: Our faculty is well known for receiving awards and recognitions for teaching. Our faculty receives annually several awards including: *UofL Faculty Favorite* (student nominations), *UofL Red and Black Mentor* (athlete student nomination), *Champions for Diversity*, and *Outstanding Mentor* (student researcher). Additionally, we have received teaching awards from the American Physiological Society (APS) and the fellowship recognition from the American College of Sport Medicine (ACSM).

Objective #9: Improve the career readiness and employability of postsecondary education graduates: Students in our program will be required to complete an internship experience. Many times, these internships result in job opportunities for our graduates. Our Exercise Science graduates have an 81% placement after graduation. We will continue to work to increase these numbers as we implement the new undergraduate degree. Additionally, members of our faculty offer resume-enhancing opportunities for students in order to gain a competitive edge in the field. These opportunities include participation in research presentations at local, regional and national conferences as well as publication in peer-reviewed scientific and practitioner journals. Our faculty are well-respected in the local, regional, national and international spheres thus providing excellent networking capital for our students.

Objective #10: Increase basic, applied, and translational research to create new knowledge, accelerate innovation, and promote economic growth: Because of the nature of the Exercise Physiology program, we will be able to provide our students with meaningful applied and translational experience in the areas of rehabilitation, exercise performance, and physiology. Over the years, several undergraduate students in the HHP degree have participated in research, published in high impact research journals, and presented in seminars and national conferences. Further, we have had students selected to present research studies and posters at the State Capitol. Our students gain top-notch opportunities and experiences in our classrooms, human performance laboratories and in our communities as well. Each year, dozens of our undergraduate and the majority of our graduate students gain presentation and publication accolades that exemplifies the excellence of our program.

- 5) *Effective and Responsible Stewardship – Strive to be exemplary stewards of our resources, seek additional resources, and develop more efficient fiscal and administrative support systems.* The program faculty will continue to build partnerships with community donors and organizations, seek out new and innovative ways to accrue funds, and apply for research and teaching grants.

IV. Diversity and Inclusion

The Exercise Physiology enrollment and recruitment plan are directly linked to UofL Strategic Enrollment Management (SEM) Plan. Because of the nature of our program, we will be attractive to a variety of students, including (but not limited to) racial and/or ethnic, sexual orientation, disability status, military status, first generation students, and socio-economic status. The Exercise Physiology program will support the CARA, not only among faculty and staff, but in particular with our students.

Current Minority Student Representation

In recent years, the Exercise Science track has made clear progress on closing the achievement gap as the number of minority students enrolling and graduating from our program is steadily increasing. In fact, Exercise Science has increased enrollment in strategic populations by 132% over the past 5 years, with approximately one third of our student body identifying as a minority student (30.8%). This exceeds CEHD and university percentages for minority representation:

Total Minority Student Headcount by Undergraduate Student Cohort

Student Cohort	2017	2018	2019	2020	2021	2022
Health & Human Performance Degree	141	155	170	174	143	144
College of Education & Human Development	503	489	511	554	521	540
University of Louisville	3250	3409	3518	3766	3753	4023

Data derived from UofL's Cards Analytics database. Data represents student numbers for the Fall semesters only.

Percent Minority Student Headcount by Undergraduate Student Cohort

Student Cohort	2017	2018	2019	2020	2021	2022
Health & Human Performance Degree	25.9	28.3	32.0	33.3	31.2	34.1
College of Education & Human Development	24.9	23.8	23.1	25.1	25.4	24.9
University of Louisville	21.4	22.6	23.5	25.4	26.1	28.0

Data derived from UofL's Cards Analytics database. Data represents student numbers for the Fall semesters only.

Further, the Health & Sport Science department is the number one recruiter of student athletes at the University of Louisville. Currently, we have over 100 athletes majoring in Exercise Science (81 NCAA athletes and 26 "support" athletes (cheer, dance, pep band, etc.)). These numbers do not include those athletes taking Exercise Science classes who have not yet declared a major. Importantly, data on course enrollment for student athletes who are majoring in our program and enrolled in HSS classes show a significant increase in minority student representation (see below). In 2015-16, student athletes were enrolled in 108 credit hours in Spring, Fall and Summer semesters. Of those students, 21.6% identified as African American, 1 % as Hispanic, 7.5% as two or more races, and 16.2% were non-resident alien students (including international students). In 2019-2020 student athletes were enrolled in 818 credit ours (757% increase). Of those 19.4% were African American students, 4.7 % were Hispanic students, 7.5% were two or more races, and 5.6% were non-resident alien students (including international students), 1.2% were American Indian/Alaskan native students (previously with no representation), and 1.6 % were Asian students (previously with no representation). Faculty and staff will continue to collaborate with Athletics to recruit high-quality students of all backgrounds.

Total Enrollment for Student Athletes Majoring in Health & Human Performance and taking HSS Courses

Ethnicity/Race	2016	2017	2018	2019	2020
Non-Resident Alien	15	11	8	9	7
African American	20	15	9	12	22
American Indian/Alaskan Native	0	0	0	0	1
Asian	0	0	1	1	2
Hispanic	1	5	5	5	6
White	65	67	62	66	62
Two or More Races	7	2	2	5	7
Total Number of Student Athletes	108	100	87	98	107

Data derived from UofL's Office of Institutional Research and Planning. Yearly data is consolidated from Fall, Spring, and Summer semesters.

New Program Recruitment & Enrollment of Diverse Students

Our commitment to student success is reflected with our current exercise science student retention and graduation rates (see below). Data collected from the *Committee on Accreditation for the Exercise Sciences* annual reports show that our program consistently recruits, retains, and graduates high quality students.

Admission and Retention Profiles

Exercise Science	2017-2018	2018-2019	2019-2020
<i>Newly Admitted Students</i>	81	105	99
<i>New Student Growth Rate (vs. 2017)</i>	N/A	130%	122%
<i>Student Retention Rate</i>	169%	483%	502%

Data derived from CAAHEP Accreditation Reports for years listed.

Importantly, data collected over the past five years shows that both students and their employers are satisfied with the education and skill set of our graduating seniors. Employer satisfaction ratings were derived from supervisors for student culminating experiences (internships); whereas student satisfaction rates were derived from graduation exit surveys.

Culminating Experience/Internship: Student Success & Employer Satisfaction Ratings

Exercise Science	2017-2018	2018-2019	2019-2020
<i>Number of Students Participating in Culminating Experience</i>	176	142	161
<i>Culminating Experience Pass Rate</i>	100%	100%	98%
<i>Employer Evaluations Received</i>	176	100	100
<i>Percentage of Students with "Exceptional" Employer Ratings</i>	100%	100%	98%

Data derived from CAAHEP Accreditation Reports for years listed.

Graduate Satisfaction

Exercise Science	2016-2017	2017-2018	2018-2019
<i>Student Gradation Exit Surveys Received</i>	86	64	53
<i>Percentage of Surveys with the Highest "Satisfactory" Ratings</i>	100%	100%	100%

Data derived from CAAHEP Accreditation Reports for years listed.

Program faculty will continue to participate in efforts to recruit and retain diverse, talented students. One way we are and will continue to attract diverse students is through the *Bridges to Undergraduate Success* program through the University of Louisville, which seeks to increase the number of incoming students from community colleges. In this program, our faculty mentor minority students from local community colleges to perform research and create competencies for an easy transition into our program. Many of students attending to community college are low income or first-generation college students. According to "The Playbook- A Guide to Assist Institutions of Higher Education in Evaluating Racial-Ethnicity Neutral in Support of the Mission-Related Diversity Goals" (Coleman et al, 2014), the use of transferring can be used to increase recruitment and diversity: "*Institutions seeking greater racial and ethnic diversity may use student transfer as a mechanism to attract students that they may not reach through the freshman admission process, but are still academically qualified for the institution's programs. Community colleges and minority-serving institutions, for example, are home to significant populations of minority and first-generation students.*" This initiative has been funded by National Institute of Health (NIH).

V. Student Demand

Students graduating with federally recognized STEM degrees are more attractive as both graduate school candidates and employees. The proposed Exercise Physiology program will be classified as a STEM undergraduate degree by the U.S. Department of Education's *National Center for Education Statistics* (CIP code 26.0908). Currently, there are a plethora of schools (10+) located in the Commonwealth of Kentucky that offer an undergraduate degree in Exercise Science or other closely related field, and only one is classified as STEM based on CIP code (Northern Kentucky University, BS Exercise Science; see *Academic Demand* section). Importantly, there are no schools in Kentucky that offer a STEM undergraduate degree in Exercise Physiology. The growing emphasis on these types of science programs by both graduate admission boards and employers coupled with high student interest for careers in Exercise Physiology will ensure that the demand

for STEM undergraduate degrees continue to grow, thus making the University of Louisville an attractive destination for students wishing to achieve this goal.

A national search of undergraduate programs offering a degree in Exercise Physiology revealed that there are less than ten schools nationwide of comparable overall student enrollment (~ 20,000) to the University of Louisville: Ohio University (public; ~ 20,000 students), Baylor University (private; ~ 20,000 students), Texas A&M University (public; 72,000 students), University of Miami (private, ~ 17,000), Florida State University (public; ~ 45,000 students), and East Carolina University (public; ~ 29,000 students). Of those six universities, only two are in the Atlantic Coast Conference (ACC): the University of Miami and Florida State University. As neither of these schools are located in the same geographic region as the University of Louisville, the only school of similar size, in a similar geographic region, offering an undergraduate degree in Exercise Physiology is Ohio University. The University of Louisville, therefore, will be one of the very few universities nationwide, one of two in the region, and the only one in the state, that can provide students with an undergraduate degree in Exercise Physiology.

Projected Enrollment and Revenue

Currently, the HHP program is home to roughly 630 full- and part-time students (including non-degree declared students). Of those, nearly 95% are pursuing a degree in the Exercise Science track.

HHP Student Enrollment

Track	2017-2018	2018-2019	2019-2020	2020-2021
<i>Exercise Science</i>	553	592	595	595
<i>Physical Education</i>	89	46	37	32
Total	642	638	632	627

Data derived from the APS Analytics platform. Yearly data is consolidated from Fall, Spring, and Summer semesters.

Creating a standalone program in Exercise Physiology, as opposed to merely an Exercise Science track in the Health and Human Performance degree, will allow the department to boost marketing efforts and expand enrollment exponentially, especially as STEM degrees are growing increasingly popular across the country. As is, the HHP degree admits between 60 and 70 new incoming freshmen students each fall; thus, we project to enroll an average of at least 70 new students each year (Table C).

New HHP Student Enrollment

Year	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021	Fall 2022
Freshman Enrollment	61	64	71	69	66	102

Once approved, the department will phase out the Health & Human Performance degree, and usher students into the new BS in Exercise Physiology. New enrollment in the current HHP program will be frozen. Current HHP students will have the option of completing their current course work, or switching to the new Exercise Physiology undergraduate degree. Because the course work for the new program contains many of the same classes that are required for the current degree, students are not expected to experience delays in degree progression should they chose to switch.

Full enrollment projections can be found on the Financial Planning Form. Tuition revenue was calculated based on the assumption that full-time students will complete the four-year degree in eight semesters and take 15 credit hours per semester. Calculations for part-time students assumed that students would enroll in 9 credit hours each semester, allowing them to complete the degree in 7.5 years. Revenue estimates were made based on the current tuition rate of \$331 per credit hour. Data presented in Table A does not include current HHP Exercise Science or Physical and Health Education students who will have the option of switching to the new program once it is approved.

Data presented in Table B includes both current HHP students (many of which who would matriculate into the new Exercise Physiology program, see poll below) and newly admitted/transfer students that would complete their degree in Exercise Physiology following implementation of the new program. Conservative enrollment projections were made under the assumption that we would continue to graduate and attract roughly the same number of students each year. Of course,

with improved transparency and marketing of the new degree combined with the fact that it is a STEM major, the number of new students admitted each year will likely be higher.

Table A. Projected Enrollment and Tuition Revenue: New Students Only

	Year 1	Year 2	Year 3	Year 4	Year 5
Full-Time (15 Credit Hours/Semester)	65	135	210	290	310
Part-Time (9 Credit Hours/Semester)	5	10	15	20	20
Projected <u>New</u> Tuition Revenue (\$\$)	\$ 675,240.00	\$ 1,400,130.00	\$ 2,174,670.00	\$ 2,998,860.00	\$ 3,197,460.00

Table B. Projected Enrollment and Tuition Revenue: Current Exercise Science Students and New Program Students

	Year 1	Year 2	Year 3	Year 4	Year 5
Current Full-Time Exercise Science Students (15 credit Hours/Semester)	65	135	210	290	310
Full-Time (15 Credit Hours/Semester)	5	10	15	20	20
Part-Time (9 Credit Hours/Semester)	425	350	275	200	125
Projected <u>New</u> Tuition Revenue (\$\$)	\$ 4,895,490.00	\$ 4,875,630.00	\$ 4,905,420.00	\$ 4,984,860.00	\$ 4,438,710.00

Current HHP (Exercise Science track) students were polled to gauge interest in the new undergraduate degree. All students were upper-level undergraduates currently enrolled in required Exercise Science track classes. Of the 239 responses received, 83% of students indicated that they intended to matriculate into the new Exercise Physiology program once it was established. We believe that this number is higher for students who are not as far along in their degree, as making the change for juniors and seniors could be cumbersome. Results of the poll are outlined below.

Current Undergraduate Interest in an Exercise Physiology Program

Survey Question	Number of Responses	Response Rate
Question: If the new Exercise Physiology program was available when you began taking classes at UofL, would you have chosen this major over the HHP degree you are currently seeking?		
Yes	210	88%
No	29	12%
Question: As a current student in the HHP degree program, would you consider switching to the new Exercise Physiology degree once it is available?		
Yes	199	83%
No	40	17%
Question: If you were in the Exercise Physiology undergraduate degree program, which concentration would you choose?		
<i>Allied Health Therapies</i>	137	57%
<i>Human Performance</i>	96	40%
<i>Physical Education (does not include students currently enrolled in the PE track)</i>	6	2.5%
Question: As part of the degree culminating experience, students in the Exercise Physiology program will be required to complete either an internship or research project. Which would you prefer?		
<i>Internship</i>	212	89%
<i>Research Project</i>	27	11%

VI. Market Demand

The U.S. Bureau of Labor and Statistics (BLS) projects that Exercise Physiologist job positions will grow nationally by 13% from 2020 to 2030. Each year, it is projected that 1,500 openings for exercise physiologists will be available each year on

average. This statistic does not include careers of athletic trainers and exercise or group fitness specialists, both of which are separate career fields that a student with a bachelor’s degree in Exercise Physiology could pursue. Those fields have a projected growth of 23% (3,100 employees per year) and 39% (69,100 employees per year), respectively, across the same 2020-2030 timeframe (see below). In 2021, reported median salaries were \$47,940 (exercise physiologist), \$48,420 (athletic trainer), and \$40,700 (exercise trainer). Importantly, the state of Kentucky and the regional metropolitan area of Louisville are expected to grow jobs in this industry segment at a rate close to the national average.

VII. Employer Demand

The U.S. Bureau of Labor Statistics (BLS) Occupational Employment and Wage Statistics database was utilized to search for employer demand data pertaining to job positions in Exercise Physiology. In addition to the job code specific to Exercise Physiology, we have reported occupational codes corresponding to related career paths that many of our students will pursue immediately following graduation (Table C). Further, as a large percentage of our students will pursue graduate education in the allied health and human performance fields (medicine, physical and occupational therapy, dentistry, etc.) following this undergraduate degree, a second assessment was completed to better approximate employer demand for various graduate careers in which our undergraduate students will pursue following graduate education (Table D).

Table C: Employer Demand Predictions for Undergraduates Students in Exercise Physiology – Immediate Work Placement

Type of Job	Regional Statistics			State Statistics			National Statistics		
	Avg Wage	Openings	% Growth Projections	Avg Wage	Openings	% Growth Projections	Avg Wage	Openings	% Growth Projections
Exercise Physiologists (29-1128)	\$40,722	-	-	\$43,607	135	10.37 %	\$47,940	18,000	13 %
Athletic Trainer (29-9091)	\$43,307	119	11.76 %	\$45,301	436	16.97 %	\$48,420	30,000	23 %
Fitness Trainers & Instructors (39-9031)	\$39,307	741	16.46 %	\$41,322	-	-	\$40,700	309,800	39 %
Occupational Therapy Assistants (31-2011)	\$63,934	-	-	\$64,007	389	39.59 %	\$61,520	49,000	34 %
Physical Therapy Assistants (31-2021)	\$59,274	395	34.68 %	\$57,098	1,649	33.54	\$49,180	140,500	32 %
Recreational Therapists (29-1125)	\$47,459	32	3.13 %	\$51,106	92	7.61 %	\$47,940	20,800	10 %
Therapists, Other (29-1129)	\$98,131	279	13.26 %	\$95,183	911	9.99 %	-	-	-
Dietitians & Nutritionists (29-1031)	\$60,832	211	12.32 %	\$58,677	788	11.17 %	\$61,650	73,000	11 %
Biological Scientists, All Other (19-1029)	\$60,993	47	4.26 %	\$63,962	232	2.16 %	-	-	-
Medical & Clinical Laboratory Technologists (29-2011)	\$56,810	1,065	8.17 %	\$56,238	4,225	9.47 %	\$57,800	335,500	11 %
Recreation Workers (39-9032)	\$30,309	746	7.51 %	\$29,689	2,764	10.17	\$29,680	354,100	16 %

Please Note: Data collected represents the average yearly wage measured in 2021, the number of open positions in 2019, and the percent growth projections for those jobs by 2029. Geographical region used for comparison: Kentuckiana Works

Table D: Employer Demand Predictions for Undergraduates Students in Exercise Physiology – Graduate Level Work Placement

Type of Job	Regional Statistics			State Statistics			National Statistics		
	Avg Wage	Openings	% Growth Projections	Avg Wage	Openings	% Growth Projections	Avg Wage	Openings	% Growth Projections
Medical Scientists (19-1042)	-	77	6.49 %	-	432	10.19 %	\$95,310	133,900	17 %
Chiropractors	\$62,554	-	-	\$62,554	669	4.93 %	\$75,000	51,400	11 %

(29-1011)									
Dentist, General (29-1021)	\$134,213	217	2.77 %	\$131,464	1,113	3.41 %	\$163,220	139,200	8 %
Physician Assistants (29-1071)	\$97,651	269	34.57 %	\$81,001	1,131	35.37 %	\$121,530	129,400	31 %
Occupational Therapists (29-1122)	\$81,282	-	-	\$81,521	1,263	20.11 %	\$85,570	131,600	17 %
Physical Therapists (29-1123)	\$89,527	774	22.09 %	\$87,786	2,741	20.87 %	\$95,620	239,200	21 %
Nurse Practitioners (29-1171)	\$106,446	746	52.28 %	\$104,539	3,326	60.28 %	\$123,780	271,900	45 %
Physicians, All Other (29-1229)	\$253,790	827	5.68 %	\$254,603	3,302	6.60 %	\$208,000	727,000	3%

Please Note: Data collected represents the average yearly wage measured in 2021, the number of open positions in 2019, and the percent growth projections for those jobs by 2029. Geographical region used for comparison: Kentuckiana Works

VIII. Academic Demand

The proposed undergraduate degree in Exercise Physiology is designed for students who wish to enter the workforce immediately following graduation AND for those students seeking professional graduate degrees in the human performance and allied health fields. The curriculum will provide students with the knowledge and hands-on application skill sets to immediately find job placement in a variety of occupations. For those students wishing to pursue graduate degrees, the course work and learning objectives of the proposed program will not only prepare them academically for advanced terminal degrees (DPT, OT, MD, DMD/DDS, PhD), it will also build students' critical thinking skills, better prepare them for placement exams and certifications, foster individual leadership skills and professionalism, and afford them the opportunity to participate in community-based interventions and activities to improve the health and wellness of individuals in their communities while strengthening their applications for graduate admission. Students who graduate from the proposed degree in Exercise Physiology will be prepared to enter graduate-level medical research programs (MS and PhD) and various professional programs in the allied health field including physical and occupational therapy, medicine, dentistry, nurse practitioners and physician assistants, chiropractic medicine, and other health therapies.

The undergraduate degree in Exercise Physiology will replace the Health & Human Performance degree (HHP), and be built upon its successful Exercise Science track. Enrollment in the Exercise Science track has steadily increased and maintained student numbers in the time frame examined with nearly 95% of students majoring in the Exercise Science track. Creating a stand-alone Exercise Physiology program will allow faculty to better market and publicize our degree as an undergraduate STEM program option, thus likely leading to increased interest and program enrollment over time.

As discussed previously, there are no undergraduate Exercise Physiology programs in the state of Kentucky. However, there is one undergraduate degree in Exercise Science that is classified as a STEM program by the federal government and would be most comparable to our proposed degree program in Exercise Physiology based on CIP codes (CIP code 26.0908):

Similar Program 1:	
Institution:	Northern Kentucky University
Program Name:	Exercise Science, Bachelor of Science
Comparison of Objectives/Focus/Curriculum to Similar Programs: <i>Explain the differences in curriculum, focus, and/or objectives. If the proposed program curriculum does not differ substantially from existing programs, then describe potential collaborations with other institutions.</i>	1. Exercise Science vs. Exercise Physiology: While the CIP codes will be the same for our proposed program and the program at NKU, our learning objectives and curricular focus will be different. Degrees in Exercise Science focus on how to improve health and wellness through movement, and commonly include topics in strength training, kinesiology, and physical education. Conversely, degrees in Exercise Physiology are more relevant for those interested in allied health and human performance careers as they will be much more detailed in terms of actual peer-reviewed, human research science. Courses that are currently on the books in the HHP degree will be enhanced, as necessary, to ensure that

	<p>students receive the appropriate updated curriculum. Elective courses rooted in medical physiology and the scientific adaptations of exercise, of which are not currently required for HHP majors, will be part of the degree tracks. For instance, students pursuing the Allied Health Therapies track will take classes such as HSS 460 <i>Human Body in Health & Disease</i> and HSS 504 <i>Physical Activity and Public Health</i>; whereas students in the Human Performance track will take a new course entitled <i>Neuromuscular Aspects of Human Performance</i> and HSS 530 <i>Nutrition for Human Performance</i>. The program will also instill additional research and experiential learning opportunities in lower-level courses and capstone projects. This degree will utilize aspects of human biology to examine human movement and its ability to initiate structural and functional adaptations at the biochemical, physiological, and biomechanical levels.</p> <ol style="list-style-type: none">2. Degree Tracks: The Exercise Science degree program offered by NKU does not afford students the option of selecting particular tracks to specialize their educational experience. Conversely, our proposed undergraduate degree in Exercise Physiology will encompass three separate tracks to best suit our students' career objectives: Human Performance, Allied Health Therapies, and Physical and Health Education. While many of the "Core" Exercise Physiology courses are similar to what is offered at NKU (for instance: Exercise Physiology, Biomechanics, and Growth & Motor Development), our students will have the option of concentrating their degree to learn skills and content that is specific to their interests and future academic/career plans. For instance, those students wishing to major in the Human Performance track will have the opportunity to take HSS 388 Foundations of Strength and Conditioning, whereas students in the Allied Health Therapies track will take two Advanced Anatomy and Physiology Laboratories to help prepare them for graduate school.3. Internships and Community Partners: The HSS department has partnered with numerous prestigious entities to provide our students with internship and research experience that is unmatched by other institutions. Students in our Human Performance track will have the option of working with leading athletic populations including U of L Athletics, Bellarmine University Strength & Conditioning, Louisville City Soccer League, Louisville Bats, Norton Sports Performance, Trinity and St. Xavier high schools, Fort Knox Performance & Tactical Training, and Louisville Fire & Police, among others. Additionally, as the city of Louisville is a major hub for healthcare services and research endeavors, our Allied Health Therapy students will have the opportunity to complete internships at local hospitals (U of L Hospital, Baptist Health, and Norton), private clinics (ProRehab, KORT Physical Therapy, Heuser Health, Trilogy Health Services, etc.), and medical research facilities (Kentucky Spinal Cord Research Center and Frazier Rehabilitation, Christina Lee Brown Envirome Institute, Wendy Novak Diabetes Center, etc.).4. Accreditation: Our current Exercise Science track is one of a few select undergraduate programs in the country that is recognized as a flagship program by two of the most influencing governing bodies in our field: American College of Sports Medicine (ACSM) and National Strength and Conditioning Association (NSCA). Conversely, NKU is only recognized by the NSCA. Furthermore, spearheaded by faculty in our program, the University of Louisville was recently recognized for its involvement in the ACSM's <i>Exercise is Medicine</i> campus campaign. The <i>Exercise is Medicine</i> program is a global health initiative aiming to make physical activity assessment and promotion a standard in clinical care. As such, our students have the opportunity to with physicians and exercise physiologists to provide physical activity resources to people from the Louisville community and beyond.5. Exam Certification Success: The separation of degree tracks also allows the inclusion of certification exam content into various courses that are specific to those student's career goals. For instance, learning objectives included in the Human Performance track course entitled Foundations of Strength and Conditioning (HSS 388) will prepare students to sit for the NSCA Certified Strength & Conditioning Specialists exam. Given our dual accreditation and the ability to specialize student degrees through our curriculum prepares students to sit for many of the certifications offered by both the NSCA and ACSM (for Allied Health and Human Performance track students). Further, coursework for students in the Physical and Health Education track will prepare students to sit for the PRAXIS Tests (ETS), with nearly 100% of our students passing certification exams on the first attempt over the past few years.
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<p>Comparison of Student Populations: <i>Describe how your target student population is different from those at other institutions and explain how your program reaches this new population (e.g. the proposed program is completely online while other programs are face-to-face or hybrid).</i></p>	<p>The new Bachelor of Science degree in Exercise Physiology will target students from all backgrounds and socioeconomic status. Given our geographical location in a major metropolitan area, our degree is perfectly poised to attract not only traditional incoming freshman students, but also first-generation college students and students from varied backgrounds and creeds. Currently, the HHP degree is composed of a diverse student body with many students from low income and underrepresented minority backgrounds, with nearly one third of our student body identifying as a minority student. Conversely, students identifying as being part of an unrepresentative or diverse group at Northern Kentucky University represent only 20% of the total student population (data derived from NKU's Office of Institutional Research on enrollment for the 2021-2022 academic year). The University of Louisville is the primary university in Kentucky that works in an urban setting to recruit, retain, and serve diverse students. Consistently, the Department of Health and Sport Sciences ranks highly regarding diversity, taking into consideration gender, ethnicity, and age of students. The proposed program will be delivered by faculty who are experts in the field with extensive practical experience and attention to ensuring our diverse student population receives the education and skills necessary to graduate and move into leadership positions.</p> <p>Importantly, our program will directly contribute to the economic and social welfare goals of House Bill 1 (HB1) through its initiative to improve the diversity and inclusiveness of Kentucky's campuses:</p> <ol style="list-style-type: none"> 1. Faculty in our program participated in the creation of the Cardinals Anti-Racist Agenda (CARA) that is an institutional effort to improve recruitment and retention of students from different racial representation. 2. Faculty in our program are active members of the Commission on Diversity and Racial Equity (CODRE). Our program is attractive to students in the LGBTQ community and the military. Our program and department were one of the first one in the university to have gender neutral bathrooms. 3. The Department also serves the university and metropolitan community through a variety of service classes fostering healthy and active lifestyles and by contributing consulting services and service-learning opportunities to students and the community (both playing a distinctive role in enhancing the University of Louisville's prominent reputation). 4. Faculty serve as mentors in the "Bridges to Undergraduate Success" program that provides stipends and course credits to minority students from community colleges to work with researchers on a project. Research shows that students familiar with faculty and involved in research projects are more likely to successfully finish undergraduate education. 5. Our program is composed of a diverse faculty, with varied backgrounds and experiences. Minority students are more likely to succeed when their mentors are also member of minority ethnic or racial representation. <p>Additionally, students pursuing the Allied Health Therapies track will see the University of Louisville as an attractive option for undergraduate education given the abundance of colleges and universities in close proximity to the university that offer professional and medical graduate programs. Our relationship with U of L Athletics and various professional sport programs will also afford students in the Human Performance track to learn from some of the best trainers and professionals in the field.</p>
<p>Access to Existing Programs: <i>Explain how/why existing programs cannot reach your target population and/or provide evidence that existing programs do not have the capacity to meet current student demand (e.g., the number of students on enrollment waiting list).</i></p>	<p>Northern Kentucky University is a small, liberal arts public college located in Highland Heights, Kentucky. It is home to roughly 12,000 undergraduate students with less than 200 undergraduate students majoring in Exercise Science. Conversely, our Exercise Science program consistently houses between 450 and 550 undergraduate students, and we can expect the same number of students (if not more) to matriculate through our proposed program in Exercise Physiology. Our facilities and community partnerships can meet this demand. A large percentage of our target body will be diverse students from the metropolitan area, many of which are transfer students in the "Bridges to Undergraduate Success" program that ushers students from community colleges into four-year degrees at the university.</p>

	<p>Further, as an R1 Research Institution, the University of Louisville is better suited to educate students in STEM fields, and many of our faculty have robust research agendas and consistently involve undergraduate students in research activities and publications. Despite having very little support (monetary and equipment/start-up support) from the college overall, our faculty continue to publish relevant research manuscripts in high-impact journals, apply for and receive extramural funding, and present their research all across the county. Total extramural funding awards for current faculty from 2017 – 2021 was approximately \$3 million dollars (these numbers do not include grant dollars for which faculty are co-investigators nor do they include instances where other departments have bought out faculty time for research). Each semester, students have the opportunity to participate in clinical and community-based research and fitness evaluations with faculty. Engaging students in these activities promotes student publications and presentations to support their professional and academic development. From 2017 – 2021, our faculty published 182 original research works. Of those publications, 109 had undergraduate Exercise Science student authors. Furthermore, nearly all of our research faculty members in the Exercise Science track have joint appointments in other departments and colleges. These include appointments at Frazier Rehabilitation Institute and the Kentucky Spinal Cord Injury Research Center, University of Louisville School of Medicine, and the Wendy Novack Diabetes Center. These joint appointments provide students additional opportunities for interdisciplinary scholarship, research, and outreach activities, which is not available to students in the Exercise Science program at NKU.</p> <p>In addition to the research specific benefits of our proposed program as compared to NKU, NKU does not offer students with a teacher certification degree track that would be included in our Human Physiology degree program. With a growth projection of 39% in the area of Fitness/Instruction and the changing landscape of secondary physical and health education our Physical and Health Education track provides students with a unique opportunity to gain a K-12 teacher certification in a field that according to the Bureau of Labor Statistics is projected to grow 5% of the next 10 years.</p>
<p>Feedback from Other Institutions: <i>Summarize the feedback from colleagues at institutions with similar programs.</i></p>	<p>When compared to Northern Kentucky University, our current program’s enrollment is approximately three times larger than theirs (170 majors). The student-to-faculty ratios for their Exercise Physiology program are 22:1 and 21:1 for their 100/200 level and 300/400 level courses, respectively. Northern Kentucky University Exercise Physiology lab courses are held to a 9:1 student-to-FTE faculty ratio. They noted that they preserve these ratios in order to promote undergraduate research projects, which students complete as part of their curriculum. In terms of facilities, Northern Kentucky University is outfitted with slightly more dedicated lab space with three different labs of 1,300ft², 1,500ft², and 600ft². The two larger labs are specifically for teaching while the third lab is used solely for research. In addition to their lab space, they have several classrooms that facilitate a “high impact practice component”. They also compliment their on-campus educational experience with two annual study abroad opportunities, one to New Zealand for a sports psychology-centered trip and one to Nelson Mandela University for an experience in high performance settings.</p> <p>This assessment of NKU’s Exercise Physiology program underscores the need for additional faculty and resources to ensure that our new undergraduate degree is a success. As we will be competing for students and enrollment with NKU, we will need to provide students with comparable experiences and opportunities.</p>

Regionally, there is a similar Exercise Physiology program located at Ohio University. Attempts to reach their program administrators regarding specific of their degree were unsuccessful; however, a comparison of our new program and the program at Ohio University was completed using readily available information obtained from their websites:

<p>Similar Program 2:</p>	
<p>Institution:</p>	<p>Ohio University</p>

<p>Program Name:</p>	<p>Exercise Physiology, Bachelor of Science</p>
<p>Comparison of Objectives/Focus/Curriculum to Similar Programs: <i>Explain the differences in curriculum, focus, and/or objectives. If the proposed program curriculum does not differ substantially from existing programs, then describe potential collaborations with other institutions.</i></p>	<p>1. Curricular Focus: The Exercise Physiology undergraduate degree at Ohio University offers only two degree tracks, which are narrowly focused in terms of career readiness and job placement following graduation. Students may choose to follow a Pre-Physical Therapy Track or a Pre-Athletic Training Track:</p> <p><i>Pre-Physical Therapy Track</i> – this concentration is offered to students who plan to pursue graduate studies in Physical Therapy (PT). According to their website, the Pre-Physical Therapy concentration is designed specifically to meet the pre-requisite PT requirements for graduate admissions to Ohio University. In addition to the Exercise Physiology Core classes, students are required to take courses in Physics (8 credit hours total), Chemistry (8 credit hours total), and Biology (8 credits total, not including 9 credit hours in anatomy/physiology), among others. Conversely, our program track in Allied Health Therapies is not based solely on PT admission requirements. Instead, we give our students flexibility in course scheduling to meet a wider range of needs in terms of graduate admission prerequisite requirements. Instead of requiring specific extradepartmental coursework, we give students freedom to choose their classes beyond the core and track specific requirements of our program. Students interested in physical therapy will not have the same admission prerequisite courses as those intending on pursuing occupational therapy or physician assistance. There are roughly 30 “free” credit hours built into the degree to allow students to fulfill their specific graduate admission requirements. This enables our program to appeal to a wider range of students interested in careers in medicine, rehabilitation, and the like. For those students who do not intend on continuing their education following graduation, they can use the extra hours to complete a minor, certificate, or to sharpen their knowledgebase in courses of the other tracks.</p> <p><i>Pre-Athletic Training Track</i> – this concentration is offered to students who plan to pursue graduate studies in Athletic Training (AT). Students in this degree track will take 16 additional credit hours in injury prevention and emergency care. These students will also be required to take AT school admission prerequisite courses in addition to their Exercise Physiology classes. Students in our Human Performance track will take similar courses as many of those students will be preparing for careers in athletic training and graduate admissions. Unlike Ohio University’s degree, students in our program will also be exposed to other careers in human performance including sport science/analytics, coaching, and strength and conditioning. Again, our curriculum is designed to appeal to a wider range of students and student interests. Importantly, students in our degree will have roughly 30 credit hours available to fulfil admission requirements for the specific graduate programs they are seeking.</p> <p>2. Certification Readiness: Many students pursuing degrees in Exercise Science and Exercise Physiology benefit from the acquisition of various certifications, both for graduate admissions and job placement following graduation. Our program is dually accredited by the National Strength & Conditioning Association (NSCA) and the American College of Sports Medicine (ACSM). As such, some of our courses were developed as preparatory classes for certain NSCA and ACSM certifications. Students in our program will have the knowledge and skill-set to sit for multiple certifications following graduation including: the NSCA Certified Personal Trainer certificate (CPT); the NSCA Certified Strength & Conditioning Specialist (CSCS); the NSCA Certified Special Population Specialist (CSPS); the NSCA Tactical Strength & Conditioning Facilitator (TSAC-F); the ACSM Certified Personal Trainer (ACSM-CPT); and the ACSM Exercise Physiologist (ACSM-EP), among others. Additionally, curriculum in the Physical and Health Education track will take courses that prepare the, to sit for the PRAXIS and teacher certification exams.</p>
<p>Comparison of Student Populations: <i>Describe how your target student population is different from those at other institutions and explain how your</i></p>	<p>The Exercise Physiology undergraduate degree will target students from all backgrounds and socioeconomic status. The University of Louisville is the primary university in Kentucky that works in an urban setting to recruit, retain, and serve diverse students. Consistently, the</p>

<p><i>program reaches this new population (e.g. the proposed program is completely online while other programs are face-to-face or hybrid).</i></p>	<p>Department of Health and Sport Sciences ranks highly regarding diversity, taking into consideration gender, ethnicity, and age of students. Currently, our programs consist of approximately 35% minority and underrepresented student populations, which is significantly higher than the university as a whole (composed of 25.7% minority and underrepresented students). Importantly, diversity and inclusion statistics at Ohio University show that the majority of students enrolled are of Caucasian descent, with only 15.7% of current students identifying as being part of a historically underrepresented group.</p> <p>Furthermore, the Exercise Physiology program at Ohio University specifically targets only students who are interested in careers in Physical Therapy and Athletic Training (as evidenced by the two program tracks). Conversely, our program will target students who are interested in many sectors of exercise physiology, including careers in rehabilitation sciences (physical, recreational, and occupational therapy), medicine (physicians, physician assistants, nurse practitioners, etc.), human performance (strength and conditioning, coaching, etc.), sport science, and education (health education, physical education, higher education).</p>
<p>Access to Existing Programs: <i>Explain how/why existing programs cannot reach your target population and/or provide evidence that existing programs do not have the capacity to meet current student demand (e.g., the number of students on enrollment waiting list).</i></p>	<p>Ohio University is a large, public university located in Athens, Ohio. It is home to roughly 26,000 undergraduate students with approximately 430 undergraduate students majoring in Exercise Physiology. The majority of Ohio University students are local to Ohio, with roughly 80% of students paying in-state tuition. The University of Louisville is comparably smaller (approximately 23,000 students), with approximately 72% of our student body permanently residing in the state of Kentucky. In general, our program will not only target individuals from the Kentuckianna region through various outreach programs and diversity initiatives, we will also recruit students from other nearby states as we are currently doing. Given our large enrollment of student athletes, many of our current students are not local to Kentucky, and we expect this trend in enrollment to continue in the new undergraduate program. Furthermore, the new Exercise Physiology program will be larger than Ohio University, as we anticipate to house between 450 and 500 full- and part-time students at any given time. The faculty will continue to increase course sections and instructors as appropriate to accommodate this student enrollment, to meet student demand, and ensure timely matriculation.</p> <p>Additionally, Ohio University's Health and Physical Education program, which is housed outside of their Exercise Physiology degree, is very similar to ours when comparing curriculum and graduation requirements. However, Ohio University is located Athens, Ohio and serves a local community of only approximately 23,000 people. Student teaching and internship opportunities for Physical and Health Education majors is therefore limited. Conversely, Louisville and Jefferson County have a much larger population (approximately 633,000 citizens), which requires an extensive K12 school system to meet the demands of its people. The Jefferson County Public School (JCPS) system is the largest school district in the state and one of the 30 largest school districts in the country. Given our existing relationship with JCPS, our students will have 1) a greater opportunity for student teaching activities and internships, and 2) have substantially more job opportunities following graduation as the need for certified teachers much greater.</p>
<p>Feedback from Other Institutions: <i>Summarize the feedback from colleagues at institutions with similar programs.</i></p>	<p>Requests for program feedback went unanswered by the faculty and administrative staff at Ohio University.</p>

IX. Funding Sources

Financial Resources and Program Impact

The proposed program can be funded entirely by tuition revenue (listed as "Other Revenues" below), as the Exercise Science track in the HHP degree currently houses over 400 full-time undergraduate students (see tables A and B), and

collects on average over \$4.2 million dollars annually. Total tuition revenue will be higher as the need for STEM undergraduate degrees increase and additional students join the new program.

Additionally, there is minimal need for additional funding pertaining to library support, technology, or equipment in the first years of the program. The Dean of Libraries has conducted a review of resources and has provided a letter addressing the library's ability to support this program. All technology platforms required for the courses involved in this program are either free to download or are available to students at no charge through the university (Microsoft Office license). Participants would be expected to provide their own equipment (i.e., laptop) to participate in this undergraduate program. However, as enrollment grows, the department and college will have to reassess teaching/office space and laboratory equipment needs to successfully manage this program.

Table E: Projected Revenues

Projected Revenues	Year 1	Year 2	Year 3	Year 4	Year 5	Five-year Total
General Funds (internal reallocation)	\$0	\$0	\$0	\$0	\$0	\$0
Grants or Gifts, list each one	\$0	\$0	\$0	\$0	\$0	\$0
Other revenues, list each one	\$ 4,895,490.00	\$ 4,875,630.00	\$ 4,905,420.00	\$ 4,984,860.00	\$ 4,438,710.00	\$ 24,100,110.00
Total Projected Revenues	\$ 4,895,490.00	\$ 4,875,630.00	\$ 4,905,420.00	\$ 4,984,860.00	\$ 4,438,710.00	\$ 24,100,110.00

New Resource Requirements

Additional resources will be needed to implement the proposed undergraduate degree in Exercise Physiology. The expected expenditures are summarized in Table F.

Faculty Workload

The Exercise Science track is composed of five tenured, research faculty and six full-time, term faculty. The department also employs several part-time instructors to teach specialty-content courses:

Exercise Science Faculty for 2020-2021

Faculty	Count	Credentials	General Workplan Designations
<i>Full-Time, Tenured (Research) Faculty</i>	5	All PhD	30-50% Teaching / 30-50% Research / 20% Service
<i>Full-Time, Clinical (Term) Faculty</i>	6	PhD: 3 and MS: 3	70-80% Teaching / 0-10% Research / 20% Service
<i>Part-Time Instructors</i>	9	PhD: 2, RD: 1, and MS: 6	N/A

Note: Each 3-credit hour course fulfills 10% of the teaching workplan for full-time faculty. Tenured faculty typically teach three to five 3-credit hour courses per year, whereas clinical faculty teach seven or eight courses each year. Laboratory courses that are only worth 1 credit hour fulfill 5% of the faculty workplan. The number of part-time instructors may change based on current semester needs.

Over the past five years, the Exercise Science faculty have continuously increased productivity with respect to student credit hour production (see below), and since 2017, have generated well over 9000 student credit hours on average each year. Our track continues to increase the number of course offerings, even with a reduced full- and part-time faculty body. The majority of our courses are taught by non-tenured clinical faculty and part-time instructors, with an average credit hour production of roughly 7600 credit hours per year over the past four years. The implementation of a new program will require additional faculty hires (see below) to be successful. This will allow for new course development and correct the course overload burden of many of our current faculty. Without new faculty, our current faculty will not be able to meet the demands of a growing program, as current faculty obligations are not sustainable long-term.

Student Credit Hour Production in Exercise Science

Variable	2017-2018	2018-2019	2019-2020	2020-2021	4-Year Average
<i>Number Course Sections Taught</i>	126	104	109	131	117.5
<i>Attempted Student Credit Hours</i>	9,399	8,952	9,013	9,671	9,259
<i>Annual Change in Course Offerings</i>	+ 10.0%	0.0%	+ 4.5%	+ 4.3%	+ 4.75%
<i>Total Instructors (Full & Part-Time)</i>	30	22	22	20	23.5

Data derived from the APS Analytics platform. Yearly data is consolidated from Fall, Spring, and Summer semesters.

Student Credit Hour Production by Faculty Type

Faculty	2017-2018	2018-2019	2019-2020	2020-2021	4-Year Average
<i>Non-Tenured Faculty</i>	6,733	7,340	8,209	8,245	7,631.75
<i>Tenured/Tenure-Track (Research) Faculty</i>	2,667	1,612	804	1,417	1,625.00

Data derived from the APS Analytics platform. Yearly data is consolidated from Fall, Spring, and Summer semesters.

Additional Faculty

To create a successful degree in Exercise Physiology, our program will need to hire three new full-time faculty over the next three to five years (one clinical/term faculty member and two research/tenured or tenure-track faculty members) to keep up with the growing demand for courses and course sections. Nearly half of our current full-time Exercise Science faculty continuously teach overloads to account for the robust undergraduate enrollment. In the last year alone, our full-time faculty taught 29 additional course sections beyond their contractual obligations to help meet the needs of our students. This does not include the extra course sections managed by part-time faculty instructors. As such, a clinical/term faculty member will be needed immediately to lessen the burden of current faculty overloads and help teach some of the new courses proposed in the curriculum (Introduction to Exercise Physiology and Advanced Biomechanics). Additionally, as student enrollment grows in the Exercise Physiology program, additional research/tenured/tenure-track faculty will be needed to address additional course sections to the Schedule of Classes, particularly laboratory-based courses to meet student demand and ensure timely matriculation. In particular, new faculty members will be needed to teach additional sections of the following courses to ensure the timely matriculation of our students: HSS 460 Human Body in Health & Disease (not currently offered to Exercise Science students); HSS 5XX Neuromuscular Aspects of Human Performance; HSS 504 Physical Activity and Public Health; HSS 506 Athlete Monitoring and Data Management; and HSS 530 Nutrition and Athletic Performance.

Currently, our undergraduate student to full-time faculty ratio in the Exercise Science track stands at nearly 46:1, which is well above the college ratio (18 students:1 faculty member) and other major STEM colleges on campus (see below). Importantly, our faculty to student ratio is well above that of other Exercise Physiology programs at comparable universities. As mentioned in the section above, the faculty to student ratio at Northern Kentucky University is only 22:1 for lecture-based courses, and 9:1 for laboratory classes (see the comparison below). Even with the proposed new hires, our student to faculty ratio will still be well above other colleges on campus (roughly 35:1 undergraduate students to full-time faculty members) and across the region. Even so, this will allow faculty to teach the standard number of courses each term and devote more time to research, the student experience, and mentoring.

University of Louisville Undergraduate Programs: Student to Faculty Ratios

College or Program	Undergrad Students	Full-Time Faculty	Full- & Part-Time Faculty	Undergrad Students to Full-Time Faculty	Students to Total Full- & Part-Time Faculty
<i>College of Arts and Sciences</i>	7677	366	624	20.98	12.30
<i>J.B. School of Engineering</i>	1905	108	142	17.64	13.42
<i>Kent School of Social Work</i>	274	38	126	7.21	2.17
<i>School of Public Health</i>	255	47	53	5.43	4.81
<i>School of Nursing</i>	1035	69	170	15.00	6.09
<i>College of Education & Human Development</i>	2048	113	264	18.12	7.76
<i>Department of Health & Sport Sciences</i>	888	26	50	34.15	17.76
<i>Exercise Science Track</i>	459	10	22	45.90	20.86

Data derived from the Cards Analytics platform. Yearly data is from Fall 2021 semester only, includes full-time undergraduate students.

Exercise Science Undergraduate Program Institution Comparison: Student to Faculty Ratios

Course Type	University of Louisville	Northern Kentucky University
100- and 200-Level Courses	40	22
300- and 400-Level Courses	30	21
Laboratory Courses	16	9

University of Louisville data was derived from the APS Analytics platform from the 2020-2021 Fall and Spring semesters, respectively. Courses include only those major classes that will be offered in the new curriculum (activity-based courses were not included). Northern Kentucky University was chosen for this comparison as it is the only other program in the state with a 26.0908 CIP code. Data was obtained from the current Program Director.

Other Resource Requirements: Marketing

The marketing budget allocation will start with \$10,000 in Year 1 and increase yearly to accommodate enrollment goals throughout the first five years of the program, for a total of \$78,000. Marketing efforts will help to generate awareness of the Exercise Physiology undergraduate program in its initial years via targeted paid advertising (conducted in part by Delphi Center/Online Learning marketing team), social media marketing, direct recruitment, and sponsorship of applicable exercise physiology conferences, such as American College of Sports Medicine (ACSM), the National Strength & Conditioning Association (NSCA), and American Physiological Society (APS) (all conducted by HSS/CEHD). As awareness of the program grows, word-of-mouth marketing may augment paid and organic marketing efforts, and potentially help decrease the cost per lead and increase conversion rates through the inquiry to enrollment funnel. HSS/CEHD will assume responsibility for all marketing costs associated with this program.

Other Resource Requirements: Student Workers

Mechanisms to support student retention in a rigorous STEM program will be implemented immediately to ensure students matriculate in a timely fashion through the degree program. A large percentage of our current student body are from minority and underrepresented groups on campus, are first generation college students, and/or have limited science background; therefore, a portion of our yearly budget will be devoted to the Peer-Led Team Learning (PLTL) program. Developed as an active learning initiative in the mid-1990s, the PLTL program was formed as a coalition between St. Xavier University, Rochester University, and the City College of New York to improve the passing rates and scores of general chemistry students. This model incorporates the use of a peer leader (a student who has successfully completed a specific course) who manages review workshops for students enrolled in various courses on a weekly basis. PLTL workshops are designed to foster critical thinking and facilitate application-based activities over material being covered in the lecture course. Importantly, research has found that programs which incorporate peer mentoring lead to increased student learning for participation and success in both non- underrepresented and underrepresented groups (Preszler, 2017). We have budgeted for 6 part-time student workers (\$15 per hour, 20 hours per week, 35 weeks per year) to initiate this program. As peer leaders, these part-time student workers would be responsible for coordinating and managing workshops for historically challenging courses in our program (Biomechanics, Anatomy & Physiology, Exercise Physiology, Statistics, etc.).

Table F: Projected New Expenses

Projected Expenses	Year 1		Year 2		Year 3		Year 4		Year 5		Five-year Total	
	#	Cost \$	#	Cost \$	#	Cost \$	#	Cost \$	#	Cost \$	#	Cost \$
NEW Faculty Lines (full-time, adjunct, or part-time faculty)	1	\$ 118,892.06	2	\$ 240,161.95	3	\$ 385,685.54	3	\$ 393,399.25	3	\$ 401,267.24	3	\$ 1,539,406.03
Graduate Assistant Positions	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Library Support		\$ 1,778.23		\$ -	0	\$ -		\$ -		\$ -		\$ 1,778.23

Facilities, technology, or equipment		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
Other: Marketing	1	\$ 10,000.00	1	\$ 14,000.00	1	\$ 16,000.00	1	\$ 18,000.00	1	\$ 20,000.00	5	\$ 78,000.00
Other: Current Salary Adjustments	1	\$ 337,708.00	1	\$ 344,462.16	1	\$ 351,351.40	1	\$ 358,378.43	1	\$ 365,546.00	1	\$ 1,757,445.99
Other: Student Workers	6	\$ 63,000.00	6	\$ 63,000.00	6	\$ 63,000.00	6	\$ 63,000.00	6	\$ 63,000.00	6	\$ 315,000.00
Total Projected Expenses	9	\$ 531,378.29	10	\$ 661,624.11	11	\$ 816,036.94	11	\$ 832,777.68	11	\$ 849,813.24	15	\$ 3,691,630.26

Budgetary Rationale

This creation of the new Exercise Physiology program will attract bright, ambitious students to the University of Louisville. Our ability to market this program directly, as opposed to a track in a HHP degree, will increase our outreach efforts and ultimately increase enrollment numbers over time. Even with conservative enrollment estimates, budgetary estimates show that the new undergraduate program in Exercise Physiology will provide the university with a positive rate of return on investment beginning immediately after its inception. There are currently approximately 425 full-time Exercise Science students enrolled in program. At a rate of \$331 per credit hour, those students provide the department with over \$4.2 million dollars in tuition revenue each year. As such, the estimated five-year total tuition revenue generated from this program will equate to roughly \$24 million dollars, taking into account current Exercise Science students who matriculate into the degree (or continue their education in the Exercise Science track of the HHP program) and projected new full- and part-time Exercise Physiology students. Importantly, as the need for STEM degrees increases over time and the job market for allied health and human performance related careers become more and more attractive to undergraduate students, we can expect those numbers to continue to grow.

To launch this program, the department will need to hire three additional faculty members over the first three years to cover new courses and current course overloads. Current faculty salaries will also be adjusted to remain competitive against similar programs using this CIP code. Data generated by CUPA-HR Surveys is included with this proposal. Additionally, to ensure student success in a grueling STEM program such as Exercise Physiology, we will hire part-time student workers to facilitate review sessions and manage the Peer-Led Team Learning Program. In total, new program expenses will amount to roughly \$3.7 million dollars over the first five years. Taking into account current faculty salaries (approximately \$4.4 million dollars over five years), new hires, and other miscellaneous charges and fees, all anticipated expenses (new and existing) can be covered by the increase in tuition revenues expected for the proposed program, resulting in a net profit of nearly \$16 million dollars over five years.

Further, there is no expectation that the proposed program would negatively impact other programs or degrees within the university. Given the positive budgetary outlook and the avoidance of negative impacts to faculty workplans or enrollment in other academic units, we feel the undergraduate program in Exercise Physiology promotes an efficient and effective use of funds.

X. Online Delivery

This course is an in-person, face-to-face academic program. Courses will be made available online for students as necessary and appropriate.