

University of Louisville

New Academic Program Proposal Template

Undergraduate, Graduate, and Professional Programs

After approval of the Letter of Intent, undergraduate, graduate, and professional programs are to complete this New Academic Program Proposal template. There is a separate template for certificate credentials.

All templates and forms are available at:

<http://louisville.edu/oapa/new-academic-program-approval-page/new-academic-program-approval>

To avoid unnecessary delays, please ensure that all questions are addressed clearly and completely and that all necessary forms are completed and submitted.

Some questions may seem repetitive, but they reflect CPE questions and must be answered exactly in the format requested. CPE readers won't have access to previous information submitted. Responses to the questions in this template are needed exactly in the format requested in each question.

If the question asks for a description, you must provide a description rather than referencing information provided elsewhere in a different format (such as a table). As well, if you decide to provide additional information in tables (such as assessment rubrics, data, etc.) you must also describe the material. We are unable to copy tables into the CPE online portal.

Questions about the template and process can be directed to the Office of Academic Planning and Accountability through the Program Approval Service Account (PROGAPPR@louisville.edu).

NOTE: All unit approval processes must be completed and documented before submitting this proposal.

Send the following materials, as well as any questions or concerns, to the **Program Approval Service Account** (PROGAPPR@louisville.edu). The program approval process will not begin until all of the above documents are received. Please submit all materials listed below at the same time.

- This Completed Proposal Template
- Proposed Program Curriculum
- Course syllabi for any new course offerings
- SACSCOC Faculty Roster Form
- CV for Program Director/Coordinator
- Course Template Form
- Proposal Budget Form
- [Letter of Support from the UofL Libraries](#)
- Letter of Support from the unit Dean
- Letter(s) of Support from any units, departments, or internal or external entities that have indicated their support for the program

General Program Information	
Program Name:	Exercise Physiology
Degree Level:	Undergraduate
Date:	March 14, 2023
Department and Department Chair:	Health and Sport Sciences, Dr. Megan Shreffler
School/College:	College of Education and Human Development
Program Director and Contact (if different); (please also include title):	Kathryn Harman, Assistant Department Chair and Exercise Physiology Program Coordinator
CIP Code:	26.0908
Program Type (collaborative, joint, or single institution):	Single Institution
Is this program an advanced practice doctorate?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Number of Credit Hours required:	120
Method of Delivery (online, face-to-face):	Face-to-Face, with some online class options
Is an approval letter from the Education Professional Standards Board (EPSB) required for this program? If so, attach a copy to this proposal.	No
(Tentative) Institutional Board Approval Date:	Fall 2023
Proposed Implementation Date (semester and year):	Fall 2024
Anticipated Date for Granting First Degree:	Fall 2026
Have all unit approval processes been completed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Please provide a list of unit approval processes with approval dates:	CEHD Curriculum Committee: March 28 th CEHD Dean Approval: April 10 th PPRC Committee: May 5 th Provost: June 23 rd

A. Overview

1. Provide a brief description of the program with its estimated date of implementation. (250 words or less; program’s purpose/focus, primary areas of study, intended audience, academic level—undergraduate, graduate, or professional, length of the program, goals/objectives, rationale for program, skills or knowledge that students will acquire, relationship of program to general field). This description will be used for external reporting and should provide a concise programmatic overview.

CPE Instructions: The succinct program description should be readily understandable to a constituent who is not familiar with the proposed discipline.

At the request of CPE and to make UofL's programs more competitive in the educational and healthcare marketplace, the CEHD is rebranding the current Health and Human Performance (HHP) degree to become a newly designed Bachelor of Science degree in Exercise Physiology (CIP code 26.0908). This comprehensive four-year program offers a robust educational foundation in STEM disciplines, with the goal of providing students with the knowledge and skills necessary for careers in allied health, physical/health education, and human performance.

The forthcoming Exercise Physiology program represents an innovative and highly refined iteration of the HHP undergraduate degree, strategically designed to better align with projected market demands and the preferences of our student body. Notably, it distinguishes itself by its strong emphasis on STEM disciplines, differentiating it from its predecessor. The current HHP program, which boasts an enrollment of approximately 500 students, is already successful, particularly in its Exercise Science track, and has garnered significant interest among students.

This interdisciplinary program will offer a comprehensive curriculum that imparts a deep understanding of human physiology and how physical movement and exercise induce structural and functional adaptations at biochemical, physiological, and biomechanical levels. Courses, which emphasizes hands-on/practical application and experiential learning opportunities, are designed to progressively cultivate critical thinking skills, thereby preparing students for immediate careers in human performance, corporate health/wellness, physical/health education, and exercise rehabilitation. Additionally, it effectively primes students for advanced degrees in allied health sciences, with many pursuing graduate credentials in medicine, rehabilitation therapy, and athletic training. Notably, students can tailor their undergraduate experience to align with their long-term career goals by selecting one of the following tracks: a) Allied Health Therapies; b) Human Performance; or c) Physical and Health Education.

2. Describe how the new program is consistent with the mission and goals of the institution.

CPE Instructions: Describe how the program will address the institution's mission and strategic goals. Highlight which areas of the institutional plan will be furthered through implementation of this program.

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 Exercise Science track in the Health & Human Performance (HHP) degree will serve as the pipeline for students entering the Exercise Physiology degree program for the first 2-3 years following its inception. Our student body will include a diverse group of undergraduate students who are being taught by national and international renowned scholars in a variety of settings. In recent years, the HHP degree program 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, the Exercise Science track 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 in 2022 (34.1%).

Further, 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 HHP degree 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 interdisciplinary 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, public health, 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. In 2022 alone, students in our program published 27 peer-reviewed, original data manuscripts and presented 26 posters at national/international 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. The Exercise Physiology faculty have established collaborative partnerships with entities outside of our department and the university to afford students with experiential learning opportunities to bolster career and graduate study 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. Further, faculty have 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.

3. **Is there a specialized accrediting agency related to this program?** Yes No

- a. If yes, please identify the agency.
b. If yes, will the program seek accreditation?

Currently, the HHP degree is one of a few select undergraduate programs in the country that is recognized as a flagship program by two of the most influential governing bodies in our field: **American College of Sports Medicine (ACSM)** and **National Strength and Conditioning Association (NSCA)**. Once established, the Exercise Physiology program will seek accreditation by both agencies. This program will also seek accreditation from the **Council for the Accreditation of Educator Preparation (CAEP, <https://caepnet.org/>)**, as this is the accountability agency for the Initial Teacher Certification program in Physical and Health Education.

4. **Does this program have a clinical component?** Yes No

If yes, discuss the nature, appropriateness, and availability of clinical sites.

5. **Identify where the program will be offered.**

- a. Indicate the projected life of the program. (Is the institution intending to offer it for a limited timeframe, or will it be ongoing?)
b. Describe the primary target audience.
c. Describe the instructional delivery methods to be used.
d. Describe the strength of the institution to undertake this new program.

- a. The program will be an ongoing/permanent program.
b. The primary target audience will be undergraduate students seeking employment in the allied health, human performance, and physical and health education fields. Students interested in pursuing graduate degrees in research and/or clinical rehabilitation/medicine will also be prime candidates for this degree (graduate programs in physical therapy, occupational therapy, medicine, physician assistant/nurse practitioner, athletic training, clinical exercise physiologists, etc.).

- c. Given the hands-on nature of the course work, this program will be delivered face-to-face, with the option of taking some distance education courses throughout the program.
- d. The new Exercise Physiology degree program will replace an already successful undergraduate degree program in Health and Human Performance, which has a popular track in *Exercise Science*. This face-to-face undergraduate track is one of the largest programs at the university (nearly 500 full-time students) and generates over \$4.2 million each year in tuition revenue, making it an extremely financially successful program. 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. 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.

Additionally, our strong interdisciplinary collaboration makes the Health & Sport Science Department at UofL uniquely equipped to undertake this new program. 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. The new 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. Finally, for those students pursuing the Physical and Health Education track, our partnership with JCPS gives students direct access to classroom instruction and educational opportunities with one of the largest school districts in the country.

6. Describe the rationale and need for the program to include how the institution determined need.

Student Demand: Students graduating with federally recognized STEM degrees are more attractive as both graduate school candidates and employees. Unlike the existing HHP degree, 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). 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 a STEM undergraduate degree in Exercise Physiology.

Market Demand: Additionally, 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 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. 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.

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. Data shows that careers in Exercise Physiology and related fields are projected to grow exponentially from now until 2030. For instance, for those students wishing to gain employment immediately following graduation, the demand for athletic trainers (bachelor's degree), fitness trainers and instructors, occupational and physical therapy assistants, and recreation workers are all expected to grow by 23, 39, 34, 32 and 16 percent, respectively. Further, as a large percentage of our students will pursue terminal degrees and 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. Again, the demand for qualified employees in these fields are projected to increase over the next decade: Medical Scientists, 17%; Chiropractors, 11%; Physician Assistants, 31%; Occupational Therapists, 17%; Physical Therapists, 21%; and Nurse Practitioners, 45%.

B. Program Quality and Student Success

The curriculum should be structured to meet the stated objectives and student learning outcomes of the program.

7. Provide specific programming goals (objectives) and specific student learning outcomes for the program in the areas that are required for SACSCOC.

For UNDERGRADUATE programs, that would be:

- Competency Related to Major
- Competency which Builds upon the Cardinal Core Curriculum (Choose either Cultural Diversity or Effective Communication)
- Competency Related to the Culminating Undergraduate Experience (CUE)
- Competency Related to Critical Thinking

For GRADUATE programs, that would be:

- Competency Related to Content Knowledge
- Competency Related to Engagement in Research -OR-
- Competency Related to Professional Practice and Training Experiences

Competency Related to Major

Program Goal #1: Provide a core curriculum that allows Exercise Physiology majors to acquire knowledge, skills, and dispositions necessary for careers allied health, human performance, and physical and health education disciplines. For students pursuing the Physical and Health Education track, the program provides candidate with content knowledge to meet the Kentucky Teacher Performance Standards (KTPS), the Society of Health & Physical Educators (SHAPE) America HETE 2018 (Health Education Teacher Education) and PETE 2017 (Physical education Teacher Education) Beginning Teacher Standards.

- **SLO #1: Allied Health and Human Performance Tracks** - Graduates demonstrate a deep and comprehensive understanding of exercise physiology principles, including how the human body responds to exercise at biochemical, physiological, and biomechanical levels. Students develop cultural competence and strong communication skills (both written and oral) to convey complex exercise physiology concepts and findings to diverse audiences. Students demonstrate knowledge and skills necessary to effectively analyze personal and academic strengths and weaknesses, and develop a logical plan to address one (or more) identified weakness.

Student competency for this SLO will be assessed through the Hallmark Assessment Tasks in HSS 394 Foundations of Exercise Physiology.

- **SLO #1: Physical and Health Education Track** - Students demonstrate a current and sufficient pedagogical and instructional knowledge of certified content areas necessary to meet the Kentucky Teacher Performance Standards, the Society of Health & Physical Educators America HETE 2018 Standards, and PETE 2017 Beginning Teacher Standards. Areas of particular importance include instructional skill development, classroom management and conflict resolution, and student assessment and feedback. Student competency for this SLO will be assessed in education methods courses (HSS 414, Student Teaching in Elementary Physical Education; HSS 415, Student Teaching in Health Education; HSS 416, and Student Teaching in Secondary Physical Education)

Competency which Builds upon the Cardinal Core Curriculum

Program Goal #2: Facilitate the development of skills in reading and conducting research, thereby promoting the growth of data-driven decision-making. Facilitate effective communication of said findings.

- **SLO #2: All Tracks** – Students demonstrate the ability to research, design, and execute research questions in their field of study. Students demonstrate effective communication of findings through written and oral presentations. Graduates will be proficient in utilizing data to inform decision-making processes, whether for exercise program adjustments, health education planning, or assessment of student learning outcomes in the educational context. Student competency for this SLO will be assessed through the Hallmark Assessment Tasks in HSS 486 Advanced Exercise Physiology (Allied Health and Human Performance Tracks) and education methods courses (Physical and Health Education Track: HSS 414, Student Teaching in Elementary Physical Education; HSS 415, Student Teaching in Health Education; HSS 416, and Student Teaching in Secondary Physical Education).

Competency Related to the CUE

Program Goal #3: Program provides students with the ability to apply knowledge, skills, and dispositions necessary to be successful in their respective career path.

- **SLO #3: Allied Health and Human Performance Tracks** – Students demonstrate the ability to practically apply the knowledge, skills, and professional dispositions acquired through their coursework during internships and experiential learning experiences. Through the completion of a culminating undergraduate experience, students will demonstrate proper communication techniques with patients/clients and the application of skill proficiency, including exercise prescription and assessment. Graduates will demonstrate the ability to effectively implement these skills in a practical setting, thus ensuring their readiness for careers in allied health, human performance, and physical and health education disciplines. Student competency for this SLO will be assessed through the Hallmark Assessment Tasks in HSS 492 Internship in Exercise Physiology.
- **SLO #3: Physical and Health Education Track** – Students demonstrate the ability to practically apply the knowledge, skills, and professional dispositions necessary to effectively lead and manage classroom interaction in K-12 schools. Through student teaching and field experiences, the student will display proficiency in classroom communication, content dissemination, and student assessment and feedback as required by our accrediting bodies (Council of Accreditation of Educator Preparation) and standards (Kentucky Teacher Performance Standards) set forth by the College of Education and Human Development Teacher Preparation programs. Student competency for this SLO will be assessed through the Hallmark Assessment Tasks in methods (HSS 404, 405, & 485), and student teaching courses (HSS 414, 415, & 416).

Competency Related to Critical Thinking

Program Goal #4: Provide a core curriculum that facilitates the development of critical thinking and problem-solving skills.

- **SLO #4: All Tracks** – Students demonstrate the ability to observe, assess, and make inferences about human movement, physiological processes, and exercise testing and prescription; and to present findings/conclusions to others in a logical and well-organized manner. Student competency for this SLO will be assessed through the Hallmark Assessment Tasks in HSS 387 Biomechanics.

8. Describe how each program-level student learning outcome will be assessed.

If you wish to attach any SLO documents you may do so, but you still need to provide a narrative response to this question.

CPE Instructions: Explain which student learning outcome(s) will be assessed by each assessment method and how frequently each assessment method is administered. Include both direct and indirect methods. Explain how assessment results will be used to make improvements to the program. Note that this item refers to a program-level, not course-level, assessment and thus course grades are not an appropriate source of data for program-level assessment.

All SLO assessments will be completed by evaluation of Hallmark Assessment Tasks for various courses in the program. Hallmark Assessment Tasks (HAT) are completed every semester in every CEHD course. Using HATs as assessments for SLO completion will allow the program to evaluate student learning every semester in a variety of foundational courses in the new program. Importantly, the student evaluations can be tracked over time to assess career readiness and subject matter comprehension, allowing the program to make adjustments in course content and delivery as appropriate. The 4 SLOs mentioned above target a variety of classes: HSS 394 (Foundations of Exercise Physiology), HSS 486 (Advanced Exercise Physiology), HSS 387 (Biomechanics), HSS 492 (Exercise Physiology Internship), and a number of student teaching courses in the Physical and Health Education track (HSS 414, Student Teaching in Elementary Physical Education; HSS 415, Student Teaching in Health Education; HSS 416, and Student Teaching in Secondary Physical Education).

SLO #1:

Allied Health and Human Performance Tracks: We will target SLO #1 through a core Exercise Physiology course – HSS 394 Foundations of Exercise Physiology.

- *Assignment:* Students will complete a HAT in which they are asked to assess an individual's baseline aerobic fitness, create and prescribe exercise training to improve the subject's fitness level, conduct post-training assessments of physical fitness, and make inferences of those results based on principles of exercise physiology and aerobic conditioning. Students will be evaluated on their ability to assess and appraise physiological responses to exercise, utilizing various techniques and technologies to measure and interpret the resulting data. These assessments will be made in a classroom setting with faculty oversight and guidance.
- *Purpose & Results:* The purpose of this assignment is for students to demonstrate a deep and comprehensive understanding of exercise physiology principles, including how the human body responds to exercise at biochemical, physiological, and biomechanical levels. We will target 75% of students enrolled in this course will either be evaluated as "Target" or "Acceptable" for the assignment grading rubric. Assessment results will inform our faculty about student content readiness and understanding, so that we may make adjustments for future classes.

Physical and Health Education Track: We will target SLO #1 through education methods courses (HSS 404, 405, and 485) and student teaching courses (HSS 414, 415, and 416) in health physical education. Results of students' Praxis exams will also be used to assess SLO #1. The *Praxis*[®] content knowledge test in Health and Physical Education is designed for prospective teachers of K-12 health and physical education. Examinees typically have completed a bachelor's degree program in health and physical education, health and exercise science, physical education and wellness, an equivalent degree, or have prepared themselves through some alternative certification program. Fifty-eight of the 130 test questions focus on studies of health, while 72 focus on studies of and experiences in physical education. Teaching standards from the Society of Health and Physical Educators (SHAPE America) were used to guide the content of the test. Scores of at least 5857 are considered a passing mark, and therefore students will be evaluated as "Target" or "Acceptable."

SLO #2:

Allied Health and Human Performance Tracks: We will target SLO#2 through an advanced physiology course, HSS 486 Advanced Exercise Physiology.

- *Assignment:* Students will complete HAT project which is a scientific writing assignment. This assignment will require students to demonstrate knowledge of concepts related to physiological systems, determine significance and relevance of scientific literature, and assess quality of student's scientific writing and research abilities.
- *Purpose & Results:* Assessment results will inform us about student understanding of advanced, scientific concepts and their introductory scientific writing skills. This will allow us to assess students' critical thinking and data

interpretation skills, gauge students' presentation skills, and ensure that coursework leading up to this capstone course is providing students with the necessary core content. We will target 90% of students enrolled in HSS 486 to score as either "Meets Expectations" or "Progressing" on the quality of writing component on the assignment grading rubric.

Physical and Health Education Track: We will target SLO #2 through education methods courses (HSS 404, 405, and 485) and student teaching courses (HSS 414, 415, and 416) in health physical education. Assignments in these classes will require students to demonstrate their knowledge of teaching philosophies, objectives, curriculum, and methods of teaching physical/health education to elementary and secondary students through various projects, literature reviews, and written assignments. Assessments will also require students to demonstrate practical implementation of these principles as they relate to course planning, instructional strategies, assignment implementation, and assessment of physical/health education at the elementary, middle, and high school levels. As previously discussed, results of students' Praxis exams will also be used to assess SLO #2.

SLO #3:

Allied Health and Human Performance Tracks – We will use HSS 492 Exercise Physiology Internship to target SLO #3.

- *Assignment:* Students will complete a HAT project which is a Critical Thinking Skills Assignment. This assignment will assess students' ability to assess a client's physical fitness, prescribe appropriate treatment/exercise modalities to improve the client's overall health, and then relay scientific information about one's health to the general public. Client assessments will be conducted in a general population/internship setting where the student is the primary practitioner (with supervisor oversight). Students must also evaluate a source of health or fitness information and discuss the source's scientific basis.
- *Purpose & Results:* Assessment results will inform us about student abilities to communicate their knowledge to their intended audience, which we will combine with feedback from internship site supervisors to ensure students are career ready. We will target 90% of students enrolled in HSS 492 will score as either "Meets Expectations" or "Progressing" on all aspects of the assignment grading rubric.

Physical and Health Education Track – Specific courses related to student teaching skills will target SLO #3 through assessment/observation of the Teaching Rubric.

- *Assignment:* During student teaching, the university supervisor in HSS 414 (Student Teaching in Elementary Physical Education), HSS 415 (Student Teaching in Health Education), and HSS 416 (Student Teaching in Secondary Physical Education) will observe candidates on two occasions (in each of the three courses) and collect written documentation related to teaching observations. Students will be assessed on skills related to proficiency in classroom communication, content dissemination, and student assessment and feedback, among others.
- *Purpose & Results:* Assessment results will inform us about student abilities to communicate their knowledge to their intended audience to ensure students are career/classroom ready.

SLO #4:

All Tracks – We will target SLO #4 through the HAT in HSS 387 Biomechanics.

- *Assessment:* Students will complete an individual assessment project with an associated written assignment. The purpose of this assignment is for students to observe and analyze a particular movement task performed by two individuals, one who is healthy/skilled and one who is injured/less-skilled. The student is then required to analyze differences in their movement patterns, draw inferences about the relevant problems associated with those differences, and deliver specific, comprehensive solutions to the problems identified. Students are asked to report their findings and recommendations in a logically written, well-organized essay.
- *Purpose & Results:* Assessment results will not only inform us about a student's ability to observe and analyze various movement patterns, it will also inform us about our students critical reasoning abilities and allow us to incorporate additional problem-solving assignments into earlier classes if we see that students are not meeting expectations. We will target 90% of students enrolled in HSS 387 will score a 2 or higher (on a 3-level scale) on all aspects of the assignment grading rubric.

9. Highlight any distinctive qualities of the proposed program.

CPE Instructions: Note any factors that make the program unique (e.g. whether any faculty are nationally or internationally recognized for expertise in this field; the program builds on the expertise of an existing locally, nationally or internationally recognized program at your institution; etc.).

Accreditation: The current HHP program 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)*. As such, many of our faculty members hold certifications with either one or both of our governing bodies including Certified Strength & Conditioning Specialists (CSCS), Certified Exercise Physiologists (C-EP), and Certified Personal Trainers (CPT), among others.

Degree Tracks: The Exercise Physiology degree 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 other universities (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.

Exam Certification Success: Many students pursuing degrees in Exercise Physiology benefit from the acquisition of various certifications, both for graduate admissions and job placement following graduation. The separation of degree tracks coupled with our dual accreditation allows for 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. Upon graduation, students in our program will be equipped with the knowledge and skills necessary to pursue multiple certifications, including but not limited to: 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. 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.

Dual Teacher Certification: For students interested in teaching careers in health and physical education, our program uniquely provides students with an opportunity to obtain K-12 dual teacher certification through the *Council for the Accreditation of Educator Preparation*.

Internship/Field Experience Requirements: Students who complete the Exercise Physiology degree will be required to participate in internship and shadowing experiences throughout their undergraduate tenure. The HSS department has partnered with numerous prestigious entities to provide our students with hands-on application 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.). Students in the Physical and Health Education track will be placed inside JCPS schools throughout their undergraduate journey where they will get hands-on experience teaching and mentoring students in K-12 classrooms.

Internationally Distinguished Faculty: Current program faculty have gained international recognition through their work on various oversight committees and scientific review boards, including the International Association of Physical Education in Higher Education (AIESEP [French acronym]) and the Health and Science Policy Committee (ACSM). Our faculty also serve on editorial boards and present their research internationally, including most recently at the 2022 International Astronautical Congress in Paris, France. Additionally, our faculty have been recognized at the national level by our accrediting organizations with titles including American College of Sports Medicine Fellow, Certified Strength &

Conditioning Coach with Distinction, and Society of Health and Physical Educators Research Fellow (SHAPE America). Importantly, members of our faculty offer resume-enhancing opportunities for students 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 will continue to provide these types of experiences for students in the new Exercise Physiology degree program.

Highly Experienced Teaching Faculty: Our faculty is well known for receiving awards and recognitions for teaching. These awards include: *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). These faculty will continue to promote academic excellence through their expertise in teaching and learning.

10. Describe the admission and graduation requirements for the program.

This information will be viewed by an external audience, so please be clear and specific.

CPE Instructions: Be as detailed as possible and address all three components – admission, retention, and completion.

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

Consistent with standards set forth by the College of Education and Human Development, 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 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.

11. Provide the following information for the program and for each track, concentration, or specialization (some categories may not apply to all programs).

CPE Instructions: A guided elective is any elective that is part of a major. A free elective is an elective from any academic area not required for a major or minor.

Program/Track, Concentration, or Specialization	Total number of hours required for degree	Number of hours in degree program core	Number of hours in track	Number of hours in guided electives	Number of hours in free electives
Allied Health Therapies	120	35	29	0	56*
Human Performance	120	35	33	0	52*
Physical Education	120	35	57	0	28*

*Please note that free electives may be used to fulfill Cardinal Core requirements and graduate school pre-requisites (as needed).

12. Describe administrative oversight to ensure the quality of the program.

Who will oversee the program and how do their credentials/qualifications align with that role?
How does program oversight include curriculum review and approval to ensure program integrity and rigor?

The new Exercise Physiology program will seek accreditation through the Commission on Accreditation for Exercise Sciences, the Commission on Accreditation of Allied Health Programs, the NSCA Education Recognition Program, the Council for the Accreditation of Educator Preparation (CAEP), and the Kentucky Educational Standards Board (EPSB). Currently, the HHP program is accredited by all of these agencies, and our continued accreditation is managed by two qualified faculty members:

Dr. Jason Jagers – Dr. Jagers received his doctorate in Exercise Science from the University of South Carolina where he specialized in clinical exercise, stress, and HIV infection. He also has a master’s degree in Exercise Physiology from the University of Louisville, where he studied the acute effects of dynamic and ballistic stretching on vertical jump height, force, and power. Importantly, he currently serves as the Exercise Science Accreditation Coordinator, where he oversees our dual accreditation from the Committee on Accreditation for Exercise Sciences and the National Strength and Conditioning Association Education Recognition Program. Dr. Jason Jagers, who is a ACSM Fellow, completes annual and semi-annual review reports which are submitted to the accrediting bodies mentioned above. Curriculum reviews are included in this process. The new program will maintain accreditation and will thus continue the ongoing curriculum review as part of this process.

Dr. Carla Vidoni – Dr. Vidoni received her PhD from Ohio State University in Physical Education Teacher Education where she specialized in applied behavioral analysis. She is a certified Physical Education teacher, and currently serves as the Program Director of the Physical & Health Education program at University of Louisville (part of the HHP undergraduate degree). She has overseen the operation and accreditation of the Physical Education & Health program since 2019, during which time it was approved by the Kentucky Education Profession Standards Board (<http://www.epsb.ky.gov/>). The first student cohort in the program started in the fall of 2019 under the direction of Dr. Vidoni. Moving forward, she will continue to manage this accreditation process as the director of the Physical and Health Education track.

13. For a program offered in a compressed timeframe (e.g., with 8-week courses), describe the methodology for determining that levels of knowledge and competencies comparable to those required in traditional formats have been achieved. (You must provide an entry.)

This program will not be offered in a compressed timeframe.

14. Please answer the following:

- a) Will this be a 100% distance learning program? Yes No

CPE Instructions: This is defined as an academic program in which all of the required courses in a program occur when students and instructors are not in the same place. Instruction may be synchronous or asynchronous.

- b) Will this program utilize alternative learning formats (e.g. distance learning, technology-enhanced instruction, evening/weekend classes, accelerated courses)? Yes No

If yes, please check all that apply below.

NOTE: If you check "yes" to this question, you must check at least one of the items listed below.

- Distance Learning
- Courses that combine various modes of interaction, such as face-to-face, videoconferencing, audio-conferencing, mail, telephone, fax, e-mail, interactive television, or World Wide Web
- Technology-enhanced instruction
- Evening/weekend/early morning classes
- Accelerated courses
- Instruction at nontraditional locations, such as employer worksite
- Courses with multiple entry, exit, and reentry points
- Courses with "rolling" entrance and completion times, based on self-pacing
- Modularized courses

15. Will this program replace or enhance any existing program(s) or tracks, concentrations, or specializations within an existing program? Yes No

The Exercise Physiology program will replace the current Health and Human Performance (HHP) undergraduate degree, which has an already successful track in *Exercise Science*. Additionally, the degree offers a track in Physical and Health Education. The Exercise Science track of the HHP degree 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 (approximately \$1.3 million goes to the College of Education and Human Development), making it an excellent candidate for a full degree program.

16. How will the program support or be supported by other programs and/or units within the institution? Please also describe potential for collaboration with other programs within the institution.

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. Students pursuing the Physical and Health Education track will also partner with local teachers in JCPS schools to complete required student teaching practicums and learning opportunities.

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.

17. Are new or additional faculty needed? Yes No

- a) If yes, please explain, indicating the number and role of each new faculty member and whether they will be part-time or full-time. Specify if part-time faculty or graduate assistants are included in the additional faculty resources needed.
- b) If yes, please provide a plan to ensure that appropriate faculty resources are available, either within the institution or externally, to support the program.

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.

Our current 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. Importantly, our faculty to student ratio is well above that of other Exercise Physiology programs at comparable universities. For instance, the faculty to student ratio at Northern Kentucky University's Exercise Science program is only 22:1 for lecture-based courses, and 9:1 for laboratory classes. 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 devote more time to research, the student experience, and mentoring. 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).

With enhanced degree visibility and marketing capabilities, we expect enrollment in the new Exercise Physiology program to grow each year. Thus, 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 (new class offering); HSS 504 Physical Activity and Public Health (not currently required in the Exercise Science curriculum); HSS 4XX Advanced Biomechanics (new class offering); and HSS 530 Nutrition and Athletic Performance (not currently required in the Exercise Science curriculum).

Tuition revenue will be able to cover all existing and future faculty lines in the program.

18. a. Describe the library resources available to support this program.

Please also submit a letter of support from the UofL Libraries. You can request this letter at <https://library.louisville.edu/forms/new-program-proposal>.

Access to the qualitative and quantitative library resources must be appropriate for the proposed program and should meet recognized standards for study at a particular level or in a particular field where such standards are available. Adequacy of electronic access, library facilities, and human resources to service the proposed program in terms of students and faculty will be considered.

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 (see letter below). 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.

November 21, 2022
Robert Goldstein
Office of the Provost
University of Louisville
Louisville, KY 40292

Bob,

We have been asked to provide a letter of support for the Bachelor of Science in Exercise Physiology. We have completed a review of our available resources in this area which indicates that we should expand our electronic book holdings to adequately support the program.

Accordingly, we request \$1,778.23 from the program in its first year to purchase the electronic books noted in our review, a copy of which is attached. Please contact us if you have any questions or need additional information.

Sincerely, Robert E. Fox, Jr. Dean, University Libraries

b. Describe the physical facilities and instructional equipment available to support this program.

Physical facilities and instructional equipment must be adequate to support a high-quality program. The proposal must address the availability of classroom, laboratory, and office space as well as any equipment needs.

The new Exercise Physiology program will continue to use the facilities and instructional equipment currently utilized by the HHP program. Our current laboratory spaces are located in the SAC East Wing and consist of a dedicated Anatomy Laboratory, Exercise Physiology Laboratory, and Strength & Conditioning Laboratory as well as multiple lab spaces maintained by our research faculty members. Classroom spaces are also located in the SAC East wing. Additionally, the current HHP program uses classroom space in Davidson Hall, the Porter Building, and the BAB. These classrooms will continue to be used by the new program, with additional classroom space utilized if needed.

C. Demand

Student Demand

19.a. Provide evidence of student demand.

Evidence of student demand is typically in the form of surveys of potential students or enrollments in related programs at the institution, but other methods of gauging student demand are acceptable.

CPE Instructions: Explain how faculty and staff systematically gathered data, studied the data and estimated student demand for the program. Anecdotal evidence is not sufficient. If student surveys have been collected, provide information regarding sample size, sampling methodology, and response rate.

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). 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.

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?		
Allied Health Therapies	137	57%
Human Performance	96	40%
Physical Education (does not include students currently enrolled in the PE track)	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?		
Internship	212	89%
Research Project	27	11%

b. Project estimated student enrollment and degrees conferred for the first five years of the program.

Both market and employer demand for careers related to allied health, human performance, and health/physical education are projected to increase substantially over the next 7-8 years (see Appendix A). As such, the demand for undergraduate degrees in fields associated with Exercise Physiology is poised for sustained growth, driven by the promising prospects for our graduates to secure immediate employment and professional/graduate school placement. Additionally, branding the program as a STEM Exercise Physiology degree will effectively attract students with a keen interest in these science-related career paths, resulting in a gradual increase in enrollment over time.

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. It is important to note that the estimates presented below include only new admits; it does not include current HHP students who would likely matriculate into the Exercise Physiology degree program over the first 2-3 years.

Projected New Student Enrollment

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Full-Time Students	65	70	75	80	85	375
Part-Time Students	5	5	5	5	5	25
Total Students	70	75	80	85	90	400

Given the sizeable undergraduate enrollment of the current HHP degree, we have every confidence the new Exercise Physiology degree program will continue to generate robust tuition revenue and attract young, bright scholars. 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
Exercise Science	553	592	595	595
Physical Education	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.

New HHP Student Enrollment

Year	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021	Fall 2022	Fall 2023
Freshman Enrollment	61	64	71	69	66	102	111

Data presented below summarizes Exercise Science track degrees conferred over the last five years. On average, the HHP program produces 118 Exercise Science graduates each academic year. We anticipate this number to grow as enrollment in the new Exercise Physiology undergraduate program increases over time.

Exercise Science Track Degrees Conferred

Year	Fall 2016 – Spring 2017	Fall 2017 – Spring 2018	Fall 2018 – Spring 2019	Fall 2019 – Spring 2020	Fall 2020 – Spring 2021
Graduates	147	137	119	65	123

Employer Demand

20. If the program is designed for students to enter the workforce immediately, please complete Appendix A.

Academic Disciplinary Needs

21. If the program proposal is in response to changes in academic disciplinary need, as opposed to employer demand, please outline those changes. Explain why these changes to the discipline necessitate development of a new program.

The current program, Health and Human Performance with a concentration in Exercise Science, is not recognized as a STEM program by the Classification of Institutional Programs (CIP). However, the CIP code assigned to ‘Exercise Physiology’ does fall into the STEM category. The recognition as a STEM program is important for multiple reasons - primarily for funding purposes and for degree prestige. As mentioned previously, degrees with STEM classification are more attractive to future employers and graduate admission panels. Further, STEM-designated degrees receive additional state funding for each graduate. We matriculate approximately 118 students each year (data averaged from 2017-2022), which will serve as a constant revenue stream for the university.

In an effort to be consistent with other regional degree programs deemed ‘Exercise Physiology’, we have restructured the curriculum and are requesting resources that would bring this new program up to par with those in the region.

D. Cost and Funding

The resource requirements and planned sources of funding of the proposed program must be detailed in order to assess the adequacy of the resources to support a quality program. This assessment is to ensure that the program will be efficient in its resource utilization and to assess the impact of this proposed program on the institution’s overall need for funds.

22. Will this program require additional resources? Yes No

If so, please provide a brief summary of new or additional resources that will be needed to implement this program over the next five years.

New Faculty Lines: The creation of this degree program will necessitate three additional full-time faculty hires. Currently, the student to full-time faculty ratio of the Exercise Science track in the HHP degree is 46:1, which is substantially higher than other STEM programs on campus and at similar Exercise Physiology programs in our geographical region. 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. An assistant clinical professor will, therefore, be added in the first year of the program's inception to help alleviate course overloads from current faculty members. Two additional research/tenure/tenure-track faculty members will be added in years two and three to alleviate teaching overloads and to provide students with meaningful research experience and opportunities. This will bring the student to faculty ratio to 35:1, which is still higher than all other major STEM programs on campus. New faculty salaries were calculated to include benefits and a 2% cost of living adjustment each year.

Supplements to Existing Faculty Lines: Currently, the Exercise Science degree employs 10 full-time faculty members. Existing salaries will still be covered by tuition revenue in the new program. Faculty salaries were calculated to include benefits and a 2% cost of living adjustment each year. Funds will also be allocated to supplement existing faculty salaries to coincide with the Exercise Physiology faculty salaries of similar programs at comparable universities. Average salary data for general physiology degree programs (CIP 26.09) in comparable Carnegie R1 research institutions were used to determine target faculty salary lines (using the CUPA-HR repository).

Student Employees: Mechanisms to support student retention will be implemented immediately to support student success in a grueling undergraduate program for STEM professionals. A portion of the budget will therefore be devoted to hiring academically qualified student workers to manage the Peer-Led Team Learning 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, as well as providing faculty support in laboratory-based classes as needed. This will help offset the exceptionally high student to faculty ratios in our program.

Library Assistance: UofL Libraries completed a review of their available resources in the area of Exercise Physiology and concluded that they have adequate resources to support the new program. However, to strengthen its resources and ensure that students/faculty have access to current information in Exercise Physiology, they are requesting \$1,778.23 to expand their electronic book holdings in the first year.

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 over five years. 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.

23. Will this program impact existing programs and/or organizational units within your institution? Yes No

If so, please describe the impact. (Examples: reallocation of resources, faculty or staff reassigned, changes to other programs and/or course offerings or other programs, reduction or increase in students served, any other possible impact.)

The Exercise Physiology undergraduate program will replace the current Health and Human Performance degree. Both of these undergraduate programs are/will be housed within the Health and Sport Sciences department, so funds will be reallocated to support the new program once it is implemented. Because the HHP degree will be phased out, there will not be a loss of funds once the new program is enacted – current HHP tuition funds, in addition to new Exercise Physiology tuition revenue, will be reallocated to support the faculty and resources in the new program. Importantly, faculty that are currently teaching in the HHP degree will continue to teach in the new Exercise Physiology degree. As such, we anticipate the implementation of the new degree to boost overall department enrollment, thus result in a positive rate of return on investment.

Importantly, all existing tracks within the current HHP degree program will be replaced by the specialized tracks offered in the forthcoming Exercise Physiology degree. Presently, students have the option of selecting either an Exercise Science or Health & Physical Education track. The revamped program will serve a dual purpose: 1) faculty will have the opportunity to incorporate greater scientific rigor into the core curriculum, given its STEM program designation; and 2), the expansion of the tracks will enable faculty to provide more tailored guidance to students with diverse interests within the field of exercise physiology.

In the restructured program, students who do not wish to pursue careers in K-12 education will have the choice of concentrating on either Human Performance or Allied Health Therapies, both of which lead to distinct career trajectories. This division allows faculty to customize coursework and course content to align with the specific career aspirations of individual students. In the current setup, all students interested in exercise science are grouped together and undertake the same set of classes, whereas the new approach empowers them to align their education with their particular professional goals.

24. Provide adequate documentation to demonstrate sufficient return on investment to the state to offset new costs and justify approval for the proposed program.

CPE Instructions: Note whether the program is predicted to increase retention rates, and, therefore, generate tuition dollars; increase revenue by attracting a new pool of students; meet employment needs in the state; feed into graduate that have been shown to be beneficial to the economic needs of the state, etc. If no new costs are anticipated, please explain.

The proposed program can be funded entirely by tuition revenue, as the current HHP degree houses over 400 full-time undergraduate students and collects over \$4.2 million dollars in tuition annually. Importantly, **total tuition revenue is projected to grow** as the need for STEM undergraduate degrees increase and additional students join the new program. As outlined previously, both the market demand and employer demand for careers in or related to degrees in Exercise Physiology are projected to grow substantially over the next 8-10 years. Importantly, employer demand for these jobs is similar for regional, state, and national projections. As such, student interest for the Exercise Physiology degree program will also continue to grow to as job availability (and demand) in the allied health, human performance, and physical and health education grows.

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 (9 credit hours within the CEHD). Calculations for part-time students assumed that students would enroll in 9 credit hours each semester (6 credit hours within the CEHD), 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 Tables A and B 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 Tables C and D include 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 & Tuition Revenue for the University: 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 & Tuition Revenue for the CEHD: New Students Only

	Year 1	Year 2	Year 3	Year 4	Year 5
Full-Time (9 Credit Hours/Semester)	65	135	210	290	310
Part-Time (6 Credit Hours/Semester)	5	10	15	20	20
Projected <u>New</u> Tuition Revenue (\$\$)	\$ 407,130.00	\$ 844,050.00	\$ 1,310,760.00	\$ 1,807,260.00	\$ 1,926,420.00

Table C. Projected Enrollment & Tuition Revenue for the University: Current and New Program Students

	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
Current Full-Time Exercise Science Students (15 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

Table D. Projected Enrollment & Tuition Revenue for the CEHD: Current & New Program Students

	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
Current Full-Time Exercise Science Students (15 credit Hours/Semester)	425	350	275	200	125
Projected <u>New</u> Tuition Revenue (\$\$)	\$ 1,673,205.00	\$ 1,886,700.00	\$ 2,129,985.00	\$ 2,403,060.00	\$ 2,298,795.00

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?		
Allied Health Therapies	137	57%
Human Performance	96	40%
Physical Education (does not include students currently enrolled in the PE track)	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?		
Internship	212	89%
Research Project	27	11%

25.a. Complete the New Program Budget Spreadsheet.

Found at: <http://louisville.edu/oapa/new-academic-program-approval-page/new-academic-program-approval>

Notes for completing the Budget Spreadsheet:

- Provide an estimate of the level of new and existing resources that will be required to implement and sustain the program.
- Any existing resources reallocated to support this new offering should be estimated as an “internal reallocation” in both the Funding Sources and Expenses sections of the budget.
- Any new resources for which the unit/department plans to allocate funding should be listed as an internal “allocation” in the Funding Sources section of the budget.
- The program proposal is to be developed without the expectation of tuition-sharing or recovery agreements with the Provost. This approach ensures that the “cost” of operating the program is somewhat reflective of reality.
- For every place you add numbers (in both the Funding Sources and Expenses spreadsheet) provide a written explanation for the numbers, including how they were calculated. The CPE system won’t let us submit the proposal without explanations for the budget numbers.
- The budget for the proposed program is to be in alignment with the latest budget assumptions (provided below as of 10/7/19) from the Budget Model Workgroup.

Undergraduate*

70% (net of mandatory student fees) of resident per credit hour tuition rate (i.e., the listed rate on the bursar’s website) charged to undergraduate students is allocated to the academic unit where the instruction takes place. Every credit hour is treated the same under the model.

Graduate/Professional*

Graduate: 75% (net of mandatory student fees) of tuition revenue allocated according to a student's home academic program.

Professional: 85% of tuition revenues generated from professional degree (law, dentistry, medicine) programs allocated to the student's home academic program.

Note: The new budget model will allocate resources to the academic unit based on where the credit hour is instructed. The unit dean will decide how to distribute funds within the college.

*These definitions of the Budget Model are as of 10/7/19 and are subject to change.

- Note that there are three tabs to the Budget spreadsheet.

Funding Sources tab:

- Indicate funding to be supplied by the unit (include direct funding & In-kind support):
- Internal allocation and reallocation are those estimated dollars needed to fund the start-up and support the new academic program – typically defined as faculty, administrative/staff, and operational expenses.
- When calculating funding, consider the impact on current faculty workloads.
- Include the expected tuition revenue generated by anticipated student enrollment.
- If the program will use existing faculty or other existing resources, the amount of funding represented by those resources are to be listed in the Funding Sources table as reallocation of funds.
- If reallocation of “existing” funds are included in the Funding spreadsheet, the numbers should also be reflected in the Expenses spreadsheet.
- If the unit has allocated funds for any new expenses in the Funding Sources spreadsheet, the numbers should also be added to the Expenses spreadsheet.

Expenses tab:

- You do not have to estimate classroom space unless you believe that existing space is not sufficient to support the academic program.
- Any expenses identified as “existing” funds in the expenses spreadsheet should also be added to the Funding Sources spreadsheet as either internal reallocation or internal allocation.

Funding Source/Expenses Combined tab:

- This spreadsheet will pre-populate based upon the numbers entered into the Funding Sources and Expenses spreadsheets. The program must have more funding than expenses.

25.b. Please provide contingency plans in the event that required resources do not materialize.

Due to the current student to faculty ratios as well as the strong student demand for our courses and degree, should the required resources needed to develop the Exercise Physiology program not be available, we will no longer continue forward with development of the new undergraduate degree. In order to create the strongest possible program for our students, adequate resources will be necessary due to the addition of new classes and experiential learning opportunities. Our current HHP program would continue as it currently stands and no changes would be made to the program curriculum.

E. Program Review and Assessment

Describe program evaluation procedures for the proposed program. These procedures may include evaluation of courses and faculty by students, administrators, and departmental personnel as appropriate. Program review procedures shall include standards and guidelines for the assessment of student outcomes implied by the program objectives and consistent with the institutional mission.

26. Provide a brief description of institutional assessment processes.

The Office of Institutional Effectiveness has prepared an institutional response to this CPE question. Please review the response and edit as needed.

UofL is committed to institutional effectiveness and continuous quality improvement of all academic programs. The university's mission and strategic planning processes are supported by regular, annual outcomes assessment reporting for academic programs in the form of Student Learning Outcomes (SLO) reports. These reports document that UofL is engaged in evaluative processes that (1) result in continuing improvement in institutional quality and (2) demonstrate the institution is effectively accomplishing its mission. In their SLO reports programs identify student learning outcomes and measures and targets for the outcomes. Programs review data surrounding their student learning outcomes to determine if their set targets were met and then use this assessment to plan for future improvement in student learning. Course syllabi include course objectives that feed into SLOs and program goals.

The SLO process begins in May when templates and instructions for completing SLO reports are sent to department chairs/heads. The SLO process lags behind by one academic year to enable programs to utilize and report assessment results from the previous academic year. Academic programs submit their completed reports by early November. The provost's office reviews all SLO reports and returns feedback to assist programs with further development and assessment of their learning outcomes. The feedback suggests changes needed to the SLO process and areas for improvement. The expectation is that these revisions be fully incorporated into the SLO reporting process for the next data collection reporting cycle. Training, workshops, and resources on student learning outcome development are provided to faculty and staff to support their efforts and to assist them in continuous improvement of their SLO reports and assessment process.

27. Describe how the institution will incorporate the change (program, site, distance education, or other change) into the institution-wide review and assessment processes.

The Office of Institutional Effectiveness has prepared an institutional response to this CPE question. Please review the response and edit as needed.

When a new program is created, an "Academic Alert" is sent to responsible parties. This alert is used by the Office of Institutional Effectiveness (IE) to add the new program to the SLO reporting process. With the creation of the new program, IE reaches out to the department head with information about the annual SLO reporting process and to set up an orientation session to familiarize them with the reporting requirements and provide whatever support is needed.

28. What are the plans to evaluate students' post-graduate success?

New Academic programs undergo an interim program review after five years for undergraduate programs, four years for masters programs, and three years for doctoral programs. After the interim review, all programs are placed on the university's regular program review schedule.

The program review template requires that programs provide feedback from graduates, alumni, and employers. In your response to this question consider how you will collect satisfaction feedback from these groups.

CPE Instructions: Explain how the program will identify graduate schools and employers and what questions will be asked in order to assess graduate school and/or workforce success.

As part of our accreditation through the Commission on Accreditation of Allied Health Education Programs (CAAHEP) and the Committee on Accreditation for the Exercise Sciences (CoAES), we collect program data and submit reports to CoAES every year (due July 1). Graduate and Employer survey data is collected and submitted as part of this report. Graduate surveys are sent out at the end of the internship in a student's final semester. Employer surveys are sent out by the month of June each year. The Employer Survey is included below as Appendix B.

NOTE: All actions in the approval of new programs for public institutions are subject to a stipulation regarding the program's ability to attain specified goals that have been established by the institution and approved by the Council on Postsecondary Education (the Council). At the conclusion of an appropriate period of time, the program's performance shall be reviewed by Council staff following criteria established in the Council's Academic Programs Policy. For more information on the program review process see <http://louisville.edu/oapa/academic-program-review-process>.

Appendix A. Employer Demand.

1. If the program is designed for students to enter the workforce immediately, please complete the following table (see resources below the table)
2. Please provide source of employer demand information and time frame for the projections: 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.

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 %

Employer Demand Resources:

Most of the current Bureau of Labor Statistics projections are for 2016-2026. If additional sources are used, please note the time frame for the projections. Other sources include:

- [Bureau of Labor Statistics' Occupational Outlook Handbook](#)
- [Kentucky Center for Statistics](#)
- Kentucky, Bridging the Talent Gap Document - <https://www.bridgingthetalentgap.org/wp-content/uploads/2017/05/KY-Statewide.pdf>
- Interactive website: <https://bridgingthetalentgap.org/dashboards/>

EMPLOYER SURVEY

University of Louisville

Exercise Physiology

Program _____

Place of Employment _____

Name of Graduate _____

Length of Employment _____

Part I

5 = Exceeds Expectations, 4 = Often Exceeds Expectations, 3 = Regularly Meets Expectations, 2 = Sometimes Doesn't Meet Expectations, 1 = Seldom Meets Expectations, NA = Not Applicable

A. Attendance and Punctuality

1. Arrives to work prepared and on time, with few absences	5	4	3	2	1	NA
2. Proves to be responsible when completing assigned tasks	5	4	3	2	1	NA

B. Professionalism, Judgment, and Attitude

1. Exhibits self-direction and responsibility for actions	5	4	3	2	1	NA
2. Demonstrates compassion for the client/patient; maintains confidentiality	5	4	3	2	1	NA
3. Exhibits enthusiasm and interest toward work	5	4	3	2	1	NA
4. Establishes and maintains good rapport with co-workers	5	4	3	2	1	NA
5. Recognizes the value of teamwork and functions well as a member of the team	5	4	3	2	1	NA
6. Exhibits a strong sense of ethical behavior	5	4	3	2	1	NA
7. Is receptive to constructive suggestions or corrections	5	4	3	2	1	NA
8. Responds calmly and effectively under pressure	5	4	3	2	1	NA
9. Observes rules of safety	5	4	3	2	1	NA
10. Adjusts well to new tasks and situations	5	4	3	2	1	NA
11. Participates in continuing education and professional development	5	4	3	2	1	NA
12. Demonstrates problem-solving skills	5	4	3	2	1	NA

C. Knowledge, Skills and Abilities

Demonstrates a working knowledge of the following principles:

1. Exercise Physiology and Related Exercise Science	5	4	3	2	1	NA
2. Pathophysiology and Risk Factors	5	4	3	2	1	NA
3. Health Appraisal, Fitness and Clinical Exercise Testing	5	4	3	2	1	NA
4. Electrocardiography and Diagnostic Techniques	5	4	3	2	1	NA
5. Patient Management and Medications	5	4	3	2	1	NA
6. Exercise Prescription and Programming	5	4	3	2	1	NA
7. Nutrition and Weight Management	5	4	3	2	1	NA
8. Human Behavior and Counseling	5	4	3	2	1	NA
9. Safety, Injury Prevention, and Emergency Procedures	5	4	3	2	1	NA
10. Program Administration, Quality Assurance, and Outcome Assessment	5	4	3	2	1	NA

Part II

5 = Strongly Agree, 4 = Agree, 3 = Somewhat Agree, 2 = Disagree, 1 = Strongly Disagree, NA = Not Applicable

1. In general, this graduate was adequately prepared for an entry-level position	5	4	3	2	1	NA
2. Given the opportunity, I would hire another graduate from this program	5	4	3	2	1	NA
3. The graduate works independently	5	4	3	2	1	NA

Part III

Identify the graduate's strengths

Identify the graduate's weaknesses

What suggestions for improvement in training of future graduates would you like to make?

Comments concerning this graduate

Name and Title of Evaluator

Signature _____

Date _____

