UCF Ph.D. in Kinesiology

Revised Degree Proposal	2
Revised Appendix A Tables	
Appendix B – Signatures	55
Appendix C – Data Supporting an Additional Program	
Appendix D – External Consultant's Report	57
Appendix E – Student Survey	
Appendix F – Faculty CVs	80
Appendix G – Letters of Support	116
Appendix H – Additional Supporting Material	127
Response to Memo with Questions	155
Memo with Questions	159



Board of Governors, State University System of Florida **REQUEST TO OFFER A NEW DEGREE PROGRAM** In Accordance with BOG Regulation 8.011

(Please do not revise this proposal format without prior approval from Board staff)

University of Central Florida	Fall 2022	
Institution Submitting Proposal	Proposed Implementation Term	
College of Health Professions & Sciences	School of Kinesiology & Physical Therapy	
Name of College(s) or School(s)	Name of Department(s)/Division(s)	
Kinesiology	Ph.D. in Kinesiology	
Academic Specialty or Field	Complete Name of Degree	
31.0505	Michael	Digitally signed by Michael Johnson
Proposed CIP Code (2020 CIP)	Johnson	Date: 2021.09.14 14:17:25 -04'00'

The submission of this proposal constitutes a commitment by the university that, if the proposal is approved, the necessary financial resources and the criteria for establishing new programs have been met prior to the initiation of the program.

2021-04-22	Digitally signed by Alexander Alexander Cartwright Date: 2021.04.09 13:14:35 -04'00'	4/9/21
Date Approved by the University Board of Trustees	President's Signature	Date
Beverly Seay Digitally signed by Beverly Seay 5/5/21	Michael Johnson Date: 2021.04.05 16:00:52 -04'00'	4/5/21
Board of Trustees Chair's Signature Date	Provost's Signature	Date

PROJECTED ENROLLMENTS AND PROGRAM COSTS

Provide headcount (HC) and full-time equivalent (FTE) student estimates of majors for Years 1 through 5. HC and FTE estimates should be identical to those in Table 1 in Appendix A. Indicate the program costs for the first and the fifth years of implementation as shown in the appropriate columns in Table 3 in Appendix A. Calculate an Educational and General (E&G) cost per FTE for Years 1 and 5 (Total E&G divided by FTE).

Implementation Timeframe	нс	FTE	E&G Cost per FTE	E&G Funds	Contract & Grants Funds	Auxiliary/ Philanthropy Funds	Total Cost
Year 1	16	14.88	\$30,242	\$449,845	\$0	\$0	\$449,845
Year 2	16	13.38					
Year 3	17	14.76					
Year 4	18	16.88					
Year 5	20	17.00	\$25,483	\$433,208	\$132,090	\$0	\$565,298

Note: This outline and the questions pertaining to each section **must be reproduced** within the body of the proposal to ensure that all sections have been satisfactorily addressed. Tables 1 through 4 are to be included as Appendix A and not reproduced within the body of the proposals because this often causes errors in the automatic calculations.

Page 1 of 47

Form Updated September 2020

I. Program Description and Relationship to System-Level Goals

A. Briefly describe within a few paragraphs the degree program under consideration, including (a) level; (b) emphases, including majors, concentrations, tracks, or specializations; (c) total number of credit hours; and (d) overall purpose, including examples of employment or education opportunities that may be available to program graduates.

While this document contains a full degree program proposal, its contents represent the conversion of the existing Education Ph.D. Exercise Physiology track which has been administered by the Division of Kinesiology for the past 10 years, to a standalone Kinesiology Ph.D. program. The existing Education Ph.D. Exercise Physiology track is currently housed within the College of Community Innovation and Education. The standalone Kinesiology Ph.D. program will be located within the College of Health Professions and Sciences and the UCF Academic Health Sciences Center. This change will align the newly proposed academic program with its current administrative unit. It also completes a series of restructuring efforts at UCF that resulted in the development of the School of Kinesiology and Physical Therapy from separate units in the former College of Education and Human Performance (Kinesiology/Sport and Exercise Science) and the former College of Health and Public Affairs (Athletic Training and Physical Therapy).

<u>Level</u>: The proposed Kinesiology Ph.D. program at UCF represents the continuation of the Education Ph.D. - Exercise Physiology track

(http://ucf.catalog.acalog.com/preview_program.php?catoid=15&poid=6915). The administrating unit of the Exercise Physiology track, the Division of Kinesiology, was relocated to the newly organized School of Kinesiology and Physical Therapy in the new College of Health Professions and Sciences in 2018. This reorganization provides the opportunity to leverage the specific focus of the college and expertise of the School of Kinesiology and Physical Therapy faculty to enhance both the academic and scientific impact of the Ph.D. program. However, it can only be accomplished if the faculty and degree are housed in the same academic college. Dean Pamela Carroll from the College of Community of Innovation and Education, which currently houses the existing Education Ph.D. - Exercise Physiology track, and Dean Christopher Ingersoll from the College of Health Professions and Sciences have both expressed support of the newly proposed Kinesiology Ph.D. program in letters provided in **Appendix G**.

<u>Emphases</u>: The existing Education Ph.D. - Exercise Physiology track is currently ranked #9 (relative to faculty size) in the U.S. by the National Academy of Kinesiology and was previously ranked #6 (relative to faculty size) in 2014. The proposed Kinesiology Ph.D. will reflect the nature of the School of Kinesiology and Physical Therapy with an expanded focus on human movement, applied physiology, and exercise and rehabilitation science.

<u>Credit hours</u>: The proposed Kinesiology Ph.D. program will parallel the existing Ph.D. Education track in Exercise Physiology with minor amendments related to the core foundational research requirements and the admission to candidacy. For the Ph.D. in Kinesiology program, a minimum of 63 credit hours beyond the master's degree will be required. Students must complete 24 credit hours of core foundational research courses, 24 credit hours of specialization courses, and 15 credit hours of Dissertation. All students must also complete the candidacy requirements.

<u>Overall purpose</u>: The purpose of the Kinesiology Ph.D. program is to develop the next generation of teacher-scholars and professional leaders to advance the broad discipline of kinesiology, which underscores nearly all health professions within SKPT (athletic training, exercise and sport physiology, and physical therapy). Within this context, graduates of the Ph.D. program will be 1) proficient in conducting scientific research, 2) skilled in delivering STEM/health-related education, and 3) prepared to make impactful contributions to professional organizations.

Since its inception, students in the existing Education Ph.D. - Exercise Physiology track have successfully gained employment upon graduation, , including three currently employed within the state of Florida) In addition to traditional academic positions, opportunities currently exist as research scientists within contract research organizations or sport scientists within professional

sporting organizations. In fact, one alumnus of the program recently elected to leave a tenuretrack position to pursue a career with a contract research organization focused on "designing and executing phase I-IV clinical trials within the dietary supplement, pharmaceutical, functional food, and medical food industries," which we expect will continue to be a viable option for future doctoral students. Another recent graduate of the doctoral program is currently in a post-doctoral with the United States Army Research Institute of Environmental Medicine (https://www.usariem.army.mil/), which employs research scientists across several divisions, including those focused on military performance and nutrition. A former faculty member now serves as the Director of Scientific Affairs for Quest Diagnostics

(<u>https://www.questforhealth.com/</u>). Letters of support have been secured from several potential external employers of our anticipated graduates from the proposed program to demonstrate need beyond traditional academic settings (see **Appendix G**). With these examples in mind, the program faculty are identifying special topics courses aimed at broadening and diversifying the skills of future graduates to prepare them for careers they may extend beyond academia.

The National Strength and Conditioning Association recently developed the Certified Performance and Sport Scientist[™] (CPSS[™]) credential aimed at standardizing expected competencies for professionals working in the "areas of athletic performance, injury prevention, and scientific processes" (<u>https://www.nsca.com/certification/cpss/scope-of-practice/</u>). Within this scope of practice, the following potential job titles were identified as relevant occupational pursuits of those with this background:

- Sport Science Coordinator (or Manager)
- Human Performance Lead
- Director of Sport Science
- Director of Sport (or Athletic) Performance
- Director of Performance Sciences
- Director of High Performance
- Director of Sport Performance and Analytics
- Assistant (or Associate) Athletic Director for Sport Performance and Wellbeing
- Senior Director of Health and Performance
- Senior Research Scientist Biomechanist, Physiologist, or Data Scientist

The eligibility guidelines of the CPSS[™] credential (https://www.nsca.com/certification/cpss/cpsseligibility-requirements/) specifically identify a Doctoral Degree Route for those with a "A doctoral degree in Sport Science or a closely related field" which would include graduate of the proposed Kinesiology Ph.D. program.

With its expanded focus as part of the School of Kinesiology and Physical Therapy, the proposed Kinesiology Ph.D. program at UCF can better address the growing healthcare needs of the aging populous and the growing prevalence of obesity by leveraging domestic and global initiatives, such as "Exercise is Medicine" promoted by the American College of Sports Medicine (https://www.exerciseismedicine.org/). A focus on healthcare needs will be accomplished by preparing and providing leaders and exercise professionals within the movement sciences to support "the belief that physical activity promotes optimal health and is integral in the prevention and treatment of many medical conditions." This professional pathway is supported by 20% or greater predicted growth through 2024 in careers related to kinesiology within the state of Florida (see Table 1). Letters of support for the proposed Kinesiology Ph.D. program have been provided by several key professional organizations within the field of kinesiology, including the American College of Sports Medicine, the National Strength and Conditioning Association, and the International Society of Sports Nutrition (Appendix G). Furthermore, graduates of the Kinesiology Ph.D. program will be uniquely prepared to serve as key facilitators in the development and adoption of advancing fitness programming, wearable fitness technology, athletic equipment, and healthcare supplies.

Additional examples of potential job prospects for graduates of the Kinesiology Ph.D. program, include the following (see full Indeed job postings in **Appendix H**):

<u>Research Scientist, Orangetheory</u> – Indeed Corporate Headquarters
 Description: "The Research Scientist must have a proven track record of applying the
 scientific method, prior experience in the implementation of exercise, nutrition and/or
 wellness programs and research, and exceptional project management and
 communication skills. As a Research Scientist, you must be able to develop, coordinate,
 implement and communicate science-backed programs on behalf of Orangetheory

Fitness. A strong understanding of scientific principles, like study design, recruitment, data management, and presentation of results must be evident based upon prior educational and work achievements. This person must have a true passion for conducting scientific research and a knack for translating said research into real-world application to bring More Life to Orangetheory members globally. Additionally, this person will partner with the Senior Director of Health Science & Research as a subject matter expert across all departments and with strategic partners to strengthen and endorse the science-backed tenant of our brand."

- <u>Senior Director of Applied Apparel Research</u> Nike Sport Research Lab
 Description: "As the Sr Director of Applied Apparel Research with the Nike Explore
 Team (NXT) Sport Research Lab, you will lead a multidisciplinary team of researchers
 who are focused on delivering game changing innovations to make a diverse and
 inclusive population of athletes* measurably better. You will help shape and align the
 strategic vision of the research teams with the broader innovation goals. You will
 champion the role of science and research, while working across multiple functional
 units to ensure maximum impact to the business and the brand. In doing so, you will
 help apply proven, scientific performance insights to next generation, innovative Nike
 products and services."
- <u>Alternate Fitness Program Manager</u> Leidos (Army Health and Fitness) Description: The Holistic Health and Fitness (H2F) System is the Army's primary investment in Soldier readiness and lethality, optimal physical and non-physical performance, reduced injury rates, improved rehabilitation after injury, and increased overall effectiveness of the Total Army. The system empowers and equips Soldiers to take charge of their health, fitness, and well-being in order to optimize individual performance, while preventing injury and disease. The H2F Alternate PM assists the PM in providing management, direction, administration, quality assurance, and leadership for the execution of this contract providing qualified and credentialed Athletic Trainers (ATs) assigned to specifically designated units to provide forward Musculoskeletal (MSK) care, early medical intervention, Injury Prevention (IP) and performance optimization services. The APM will serve as the alternate point of contact and provide overall leadership and guidance for all personnel, including assigning tasks to personnel, supervising on-going technical efforts, managing overall performance.
- B. Please provide the date when the pre-proposal was presented to CAVP (Council of Academic Vice Presidents) Academic Program Coordination review group. Identify any concerns that the CAVP review group raised with the pre-proposed program and provide a brief narrative explaining how each of these concerns has been or is being addressed.

The pre-proposal was presented to the CAVP Academic Program Coordination review group on November 11th, 2019. Below are the comments and responses to the review.

<u>Comment 1</u>: UNF indicated they were not clear on the career options. Their dean specifically mentioned that they would not be able to hire graduates if this proposed program to teach in their P.T. program.

<u>Response 1</u>: The comment is interesting because the Department Chair for the Department of Clinical & Applied Movement Sciences, in which the DPT program at UNF is housed, has an Ed.D. in Educational Leadership. Further, the Director of the DPT program at UNF holds a Ph.D. in Physiology, while others within the core faculty in the DPT program have Ph.D. training in neuroscience and rehabilitation science.

Program administrators (directors/chairs) are informed of accreditation requirements for faculty qualifications in physical therapist education programs (below). Requirements are that all core faculty have doctoral education and contemporary expertise in assigned teaching areas.

- If those areas of teaching assignment are relative to P.T. practice, then the faculty must have licensure as a physical therapist (requires P.T. education at the M.S., BS, or DPT level).
 - If not at a DPT level, then this requires the addition of a Ph.D. Currently, less than 10 Ph.D. programs in "Physical Therapy" exist.

- Since topic areas of kinesiology are requisite content areas of all physical therapy education (similar to anatomy, physiology, research), these are common areas in which PT-trained faculty obtain doctoral research training.
- Currently, the American Council of Academic Physical Therapy (ACAPT) has a consortium - Research Intensive Programs in Physical Therapy, which shares Ph.D. programs that are affiliated with or immediately within units providing DPT education. Of the 40 listed programs nationwide, eight programs have the same or similar name as "kinesiology," and 22 programs have tracks that are named or similarly named to kinesiology.

Professional Accreditation Criteria for Core Faculty in P.T. Education (CAPTE, 2019): Required Element 4A - Each core faculty¹ member, including the program director and clinical education coordinator, has doctoral preparation², contemporary expertise³ in assigned teaching areas, and demonstrated effectiveness in teaching and student evaluation. Also, core faculty who are P.T.s and who are teaching clinical P.T. content are licensed...as a P.T.

<u>Comment 2</u>: F.S.U. indicated they had a similar program but are using CIP 26.0908. Suggested simply to look to decide if we are using the best CIP.

<u>Response 2</u>: The program faculty found this recommendation to review the CIP code an appropriate exercise, as they created the full proposal. The Kinesiology B.S. and M.S. programs at UCF fall under CIP 31.0505 which will allow for appropriate programmatic alignment. The Kinesiology programs at UCF are unique compared to FSU in that UCF created a new unit, the School of Kinesiology and Physical Therapy, that houses Athletic Training, Kinesiology and Physical Therapy. Within the new School, there is an Institute of Exercise Physiology and Rehabilitation Science. When surveying the type of research conducted by the faculty in the School, the CIP code 31.0505 seems to best represent the kind of science being conducted by the faculty

CIP Code 31.0505 Exercise Science and Kinesiology.

Definition: A scientific program that focuses on the anatomy, physiology, biochemistry, and biophysics of human movement, and **applications to exercise and therapeutic rehabilitation**. Includes instruction in biomechanics, motor behavior, motor development and coordination, motor neurophysiology, performance research, rehabilitative therapies, the development of diagnostic and rehabilitative methods and equipment, and related **analytical methods and procedures in applied exercise and therapeutic rehabilitation**.

CIP Code 26.0908 Exercise Physiology and Kinesiology

Definition: A program that focuses on the scientific study of the physiological processes involved in physical or motor activity, including sensorimotor interactions, response mechanisms, and the effects of injury, disease, and disability. Includes instruction in muscular and skeletal anatomy; **molecular and cellular basis** of muscle contraction; fuel utilization; neurophysiology of motor mechanics; systemic physiological responses (respiration, blood flow, endocrine secretions, and others); fatigue and exhaustion; muscle and body training; physiology of specific exercises and activities; physiology of injury; and the effects of disabilities and disease.

C. If this is a doctoral level program please include the external consultant's report at the end of the proposal as Appendix D. Please provide a few highlights from the report and describe ways in which the report affected the approval process at the university.

¹ **Core faculty**: Those individuals appointed to and employed primarily in the program, including the program director, the director of clinical education (DCE) and other faculty who report to the program director. The core faculty have the responsibility and authority to establish academic regulations and to design, implement, and evaluate the curriculum. The core faculty include physical therapists and may include others with expertise to meet specific curricular needs. The core faculty may hold tenured, tenure track, or non-tenure track positions. Members of the core faculty typically have full-time appointments, although some part-time faculty members may be included among the core faculty.

² Doctoral preparation: Earned doctorate, including the DPT.

³ Contemporary expertise: Expertise beyond that obtained in an entry-level physical therapy program that represents knowledge and skills reflective of current practice. Longevity in teaching or previous experience teaching a particular course or content area does not by itself necessarily constitute expertise.

The existing Education Ph.D. - Exercise Physiology track completed its Academic Program Review in Spring 2020, and the external consultant report is included as Appendix D. The external consultants for the doctoral program proposal were Dr. Lori Ploutz-Snyder and Dr. Melinda Solmon. Dr. Ploutz-Snyder is a professor of Movement Science and dean of the University of Michigan School of Kinesiology. Dr. Solmon is Professor and Director of the School of Kinesiology at Louisiana State University. The intention to pursue the standalone Ph.D. program as well as the Classification of Instructional Programs (CIP) change request to 31.0505 were highlighted within the Self-Study documents provided to the external consultants and further discussed during the site visit. The program was highlighted as having several strengths, including student-led research productivity, post-graduation job placement, and a "small, cohesive faculty" with expertise in the "scientific basis of strength and conditioning with a focus on the neuromuscular system." The primary concern raised by the consultants related to the fit and sustainability of the program within the College of Community Innovation and Education rather than the faculty's academic home within the College of Health Professions and Sciences. While this concern is the fundamental driver behind the current proposal, several other issues noted in the report will also be addressed, including a decrease in the overall number of student credit-hours required for the degree, modifications to the candidacy process, and the inclusion of kinesiology-specific research methods and statistics courses within the foundational research core. The following summary provides recommendations from the external consults from each section of the Academic Program Review report and their impact on the current proposal:

• Section 1 - Program Goals and Planned Student Learning Outcomes

- \circ $\it Recommendation$: Develop system to collect and maintain the student learning outcome data
- Impact on Current Proposal: Prior to the 2018-2019 academic year, the existing Education Ph.D. - Exercise Physiology track was evaluated as part of the Institute Effectiveness Assessment for the entire Education Ph.D. program. With the realignment of its administrative unit and formation of the College of Health Professions, the first full review of the track was not completed until the 2019-2020 academic year and this process will be in place moving forward for the proposed Kinesiology Ph.D. program.

• Section 2 - Program Coordination, Administration, and Student Support

- $_{\odot}$ Recommendation: Align comprehensive exam process with the student learning outcomes
- Impact on Current Proposal: The comprehensive examination process was previously designed to accommodate diversity of the various tracks in the Education Ph.D. program. The current proposal takes into consideration the feedback from the external consultants and establishes standardized procedures with deliverables in association with the Qualifying Examination/Pre-Dissertation Project that are in line with the expectations of the program faculty.

• Section 3 – Contributing Faculty and Graduate Assistantships

- o Recommendation: Increase number and diversity of research active tenure track faculty
- Impact on Current Proposal: While financial concerns limit the ability to fully address the external consultants recommendations in this area, one female tenure-track faculty member from the Athletic Training Program is now serving as a major professor for a doctoral student in the existing Education Ph.D. - Exercise Physiology track, and another female tenure-track faculty member is currently in the process of being hired by the Division of Physical Therapy with expectations to have similar involvement with the proposed Kinesiology Ph.D. program. Furthermore, the Division of Kinesiology has worked with Faculty Excellence and the Office of Institutional Equity to pursue targeted faculty hires to address programmatic deficiencies related to diversity.

• Section 4 - Program Demand and Productivity

- o Recommendation: Evaluate career options for PhD trained applied sport professionals
- Impact on Current Proposal: The ability to better define the career paths of doctoral students and align the curriculum with the strengths of the faculty in the School of Kinesiology and Physical therapy is part of the motivation and intention of the current proposal. One of the candidacy requirements in the proposed curriculum is "Proof of current professional certification(s) demonstrating industry-relevant competencies" which is a direct response to this recommendation. Furthermore, several letters of support have been obtained from nonacademic entities that reflect career paths outside of the traditional academic route.
- Section 5 Program Quality
 - o Recommendation: None

- *Impact on Current Proposal*: The lack of a recommendation for the section provided further encouragement and motivation for the development of this proposal.
- Section 6 Student Characteristics and Quality
 - o Recommendation: Increase efforts and visibility of alumni engagement at the college level
 - Impact on Current Proposal: While resources may be limited, progress towards improvement in this area is expected through alignment of the proposed Kinesiology Ph.D. program with the College of Health Professions and Sciences and further maturation of program.
- Section 7 Curriculum, Course Offerings, and Student Engagement Opportunities
 - Recommendation: Move the PhD program within College of Health Professions and Sciences and align curriculum with Kinesiology
 - Impact on Current Proposal: This recommendation from the external consultants supports the entire basis of current proposal and revised curriculum, including the inclusion of kinesiologyspecific research methods and statistics courses within the foundational research core.
- Section 8 Comparative Advantage
 - o Recommendation: Consider the total number of courses and balance with research efforts
 - Impact on Current Proposal: The total number of credit hours was reduced in the current proposal, while an additional course was added to support the dissertation development process, and the comprehensive examination was better defined with an emphasis of research-based deliverables related to the Qualifying Examination/Pre-Dissertation Project.
 - D. Describe how the proposed program is consistent with the current State University System (SUS) Strategic Planning Goals. Identify which specific goals the program will directly support, and which goals the program will indirectly support (see link to the SUS Strategic Plan on <u>the resource page for new program proposal</u>).

The State University System (SUS) Strategic Planning Goals outlines specific objectives related to Excellence, Productivity, and Strategic Priorities for Knowledge Economy within three overarching points of emphasis: 1) Teaching & Learning, 2) Scholarship, Research, & Innovation, and 3) Community & Business Engagement. As outlined below, the transition of the Education Ph.D. - Exercise Physiology track to the Kinesiology Ph.D. program and relocating it from the College of Community Innovation and Education to the College of Health Professions and Sciences in the UCF Academic Health Sciences Center will allow for the continued support of these goals along with several enhancements in key areas.

Teaching & Learning Goals

Excellence: Strengthen Quality and Reputation of the Universities **Productivity:** Increase Degree Productivity and Program Efficiency **Strategic Priorities:** Increase the Number of Degrees Awarded in STEM/Health and Other Programs of Strategic Emphasis

The existing Education Ph.D. - Exercise Physiology track was ranked in top 10 (relative to faculty size) in the U.S. by the National Academy of Kinesiology in 2014 and 2020, respectively. Students in the proposed Kinesiology Ph.D. program will benefit from knowledgeable faculty and involvement with teaching, and research endeavors focused on the translational impact of a deep understanding of human movement, applied physiology, and exercise science. The Ph.D. program's alignment with the Kinesiology BS and MS programs in the same academic unit will enhance these endeavors within the School of Kinesiology and Physical Therapy, the College of Health Professions and Sciences and the UCF Academic Health Sciences Center.

The Kinesiology Ph.D. program at UCF would be the first to be offered within the 31.0505 CIP and the only one of its kind at a Hispanic-serving Institution (HSI) in the state of Florida. The CIP definition for 31.0505 - Exercise Science and Kinesiology is "a scientific program that focuses on the anatomy, physiology, biochemistry, and biophysics of human movement, and applications to exercise and therapeutic rehabilitation" and is included in Florida SUS Board of Governor's list of STEM CIP codes. Approval of the doctoral program will provide a clear and distinct avenue for the diverse undergraduate student population [as of Fall 2020: 49% female, 57% minority (32% Hispanic/Latino, 17% Black/African American)] to progress from the Kinesiology B.S. and M.S. programs with an option to obtain a terminal degree within their primary field of study and the College of Health Professions and Sciences.

Scholarship, Research, and Innovation Goals

Excellence: Strengthen the Quality and Reputation of Scholarship, Research, and Innovation **Productivity:** Increase Research Activity and Attract More External Funding **Strategic Priorities:** Strengthen the Quality and Recognition of Commitment to Community and Business Engagement

Transitioning the Education Ph.D. - Exercise Physiology track from its existing college to the Kinesiology Ph.D. program within the College of Health Professions and Sciences and the UCF Academic Health Sciences Centers is expected to attract additional funding through enhanced visibility and marketability tied to a more direct connection with its mission and through strategic collaborative efforts amongst its faculty and industry/community partners, and healthcare organizations. At the same time, this should uniquely position the Kinesiology Ph.D. program as a research enterprise that can have a broad impact across each of the disciplines with the School of Kinesiology and Physical Therapy. Furthermore, this transition should enhance the program's research profile and assist in the recruitment and development of talented students.

Community and Business Engagement

Excellence: Increase Levels of Community and Business Engagement **Productivity:** Increase Research Commercialization Activities **Strategic Priorities:** Increase Community and Business Workforce

In addition to the experiential learning activities and scientific investigations being conducted in the School of Kinesiology and Physical Therapy (SKPT) laboratories, students benefit from connections with the Institute of Exercise Physiology and Rehabilitation Science, the several ongoing Sport Science Initiatives, and various community/industry partners.

The Institute of Exercise Physiology and Rehabilitation Science is integral to the SKPT's research enterprise and community outreach efforts. Its mission is to extend the scientific reach and broaden the community impact of SKPT faculty through collaborative research efforts, enhanced awareness, strategic organization, and innovation. Through this process, the Institute aims to support and enhance the Research, Service, and Teaching activities of the School of Kinesiology and Physical Therapy faculty with scientific integrity, inclusivity, open-mindedness, and advocacy as guiding characteristics. Moving forward, the Institute of Exercise Physiology and Rehabilitation Science will aim to strengthen further the university's ability to hit key metrics through innovative thinking and collaboration. In particular, the Institute's focus on obtaining research awards, research publications in internationally respected journals, fostering a positive learning environment for UCF students and trainees, and a dedicated focus on community partnership are key aspects of its ability to advance.

The ongoing UCF Athletics Sport Science Initiative has been developed in a manner such that similar model programs can be developed for entities outside the university, including professional sporting organizations, military settings, and healthcare facilities.

- E. If the program is to be included in a category within the Programs of Strategic Emphasis as described in the SUS Strategic Plan, please indicate the category and the justification for inclusion. The Programs of Strategic Emphasis Categories are:
 - Critical Workforce:
 - □ Education
 - □ Health
 - □ Gap Analysis
 - Economic Development:
 - □ Global Competitiveness
 - Science, Technology, Engineering, and Math (STEM)

Please see the Programs of Strategic Emphasis (PSE) methodology for additional explanations on program inclusion criteria at <u>the resource page for new program</u> <u>proposal</u>.

The proposed 31.0505 CIP code for this program is considered a STEM area and falls within the Categories of Strategic Emphasis for "Economic Development." With its unique home in the School of Kinesiology and Physical Therapy and the College of Health Professions and Sciences in the UCF Academic Health Sciences Center, the Kinesiology Ph.D. program will also make an impact on the Critical Workforce needs of the State of Florida for both the Health and Education categories by preparing fitness and healthcare professionals at the university-level to support these areas.

F. Identify any established or planned educational sites at which the program is expected to be offered and indicate whether it will be offered only at sites other than the main campus.

The Kinesiology Ph.D. program will only be offered at the UCF main campus.

Institutional and State Level Accountability

- II. Need and Demand
 - A. Need: Describe national, state, and/or local data that support the need for more people to be prepared in this program at this level. Reference national, state, and/or local plans or reports that support the need for this program and requests for the proposed program which have emanated from a perceived need by agencies or industries in your service area. Cite any specific need for research and service that the program would fulfill.

Over the last decade, kinesiology (or exercise science) is one of the fastest-growing majors in the U.S. (**Figure 1**). Employment trends support continued growth within this area of study at the national and state level for various careers commonly pursued by undergraduate and graduate students completing degree programs offered within the School of Kinesiology and Physical Therapy (**Table 1**).

According to the Bureau of Labor Statistics, continued growth within this area of study is supported by employment trends of greater than 10% at the national level for various careers commonly pursued by students graduating with kinesiology-related degrees. Within the state of Florida, even higher projections are reported by the Florida Department of Economic Opportunity. Knowledgeable fitness and healthcare professionals are needed to support healthy living amongst the state's residents, who are rapidly increasing in population size and age.

Change in share of US college majors from 2008 to 2017



 $\Delta \top L \Delta S$ | Data: Sapping Attention

Figure 1. Change in share of U.S. college major from 2008-2017

*Figure developed from the Integrated Postsecondary Education Data System (IPEDS) data: <u>https://www.theatlas.com/charts/ryy0KnWDX</u> & <u>https://qz.com/1370922/the-2008-financial-crisis-completely-changed-what-majors-students-choose/</u>

Occupation	U.S. Projection (2016-2026)	Florida Projection (2014-2024)
Fitness trainers and aerobics instructors	+10%	+22%
Coaches and scouts	+13%	n/a
Exercise physiologists	+13%	+23%
Athletic trainers	+23%	+25%
Physical therapists	+28%	+34%
Recreation and fitness studies teachers, postsecondary	+10%	+18%
Health specialties teachers, postsecondary	+26%	n/a

Table 1. National- and state-level employment trends for select occupations related to kinesiology

*Data from the U.S. Bureau of Labor Statistics (<u>https://data.bls.gov/projections/occupationProj</u>) & the Florida Agency for Workforce Innovation

(<u>https://www.careerinfonet.org/Occupations/select_occupation.aspx?next=indust1&level=&optstatus=&id</u> =1&nodeid=211&stfips=&jobfam=&menuMode)

A diverse pool of teacher-scholars with the potential to serve as university faculty in kinesiology programs are required to prepare students for the workforce and to educate the communities of Central Florida and beyond. Increased certification requirements for healthcare and fitness professionals are also driving student growth in undergraduate and graduate programs across the state and in the U.S., which desire well-rounded academic faculty. In addition, other professional disciplines, such as physical therapy (with an estimated 173 faculty vacancies nationwide), have needs for individuals with kinesiology-related Ph.D. training. Finally, for those graduates choosing to pursue non-academic endeavors, the Kinesiology Ph.D. program will serve as preparation for careers such as research scientists for federal agencies like NASA or Military, or private industries such as sport equipment manufacturing, nutrition, ergonomics, or

research equipment. Other careers include sport scientist for Olympic and professional sports and laboratory director for hospitals or universities. Given the multidisciplinary nature of kinesiology, graduates from this program will be prepared to contribute to a wide variety of professional settings. **Table 2** provides examples of the potential crossover impact of individuals completing a degree in kinesiology.

Table 2. Sample interdisciplinary contributions to the field of kinesiology. From: https://www.tandfonline.com/doi/full/10.1080/24711616.2016.1277671

Discipline	Examples of successful interdisciplinary with kinesiology
Biology	• Timing of biological maturity examined alongside of physical activity (Sherar, Cumming, Eisenmann, Baxter-Jones, & Malina, 2010)
Chemistry	• Health related blood chemicals and associations with nutrition (Kotani, 2013; Netscher, 2011)
Engineering	• Sport prostheses and prosthetic adaptations for the upper and lower limb (Bragaru, Dekker, & Geertzen, 2012)
Technology	 Technological activity-tracking devices can affect adult PA levels (Bice, Ball, & McClaran, 2016) Mobile phones and other mobile devices may also be able to affect PA levels in all age ranges (Fanning, Mullen, & McAuley, 2012)
Business Management	 Current and planned budgets & financials, communication, marketing, networking, stake-holder management, and the various layers of management in sports (Porter & Baker, 2004) Substance abuse prevention, policy, and interventions (Santos, 2015)
Law	 Regulations, policies related to kinesiology as it pertains to sport and concussions (Adler, 2011) Risks for sport participation and regulations to prevent potential injuries (Berger, 2011)
Psychology	 Help explain human behavior as it pertains to physical health (physical activity) (Macri, Young, & Khan, 2010; Rhodes & Nasuti, 2011) Motivation, environmental influence, and social settings can contribute to physical activity behaviors (Heaney & Israel, 2008; Kilpatrick, Hebert, & Bartholomew, 2005; Macri et al., 2010; McNeill, Kreuter, & Subramanian, 2006; Rhodes & Nasuti, 2011; Verstraete, Cardon, De Clercq, & De Bourdeaudhuij, 2007)
Sociology	 Themes associated with child health policies that can help enhance child health within various settings (Brady, Lowe, & Olin Lauritzen, 2015) Context and influence of society on healthcare and future implications to overall human health (Goring et al., 2014)
Recreation Management	 Students and their awareness of the existence of outdoor adventure programs at the university (Flood & Parker, 2014) Physical resilience can increase after exposure to outdoor adventure programs (Neill & Dias, 2001)
Additional areas of interest	Mathematics, marketing, economics, physics, computer science

B. Demand: Describe data that support the assumption that students will enroll in the proposed program. Include descriptions of surveys or other communications with prospective students.

The existing Education Ph.D. - Exercise Physiology track has admitted approximately three students per year from an average of 10 applicants (with 21 in fall 2018) since 2011 and has graduated 16 students since 2012 with 100% employment. The track currently has experienced faculty mentors and 16 doctoral students planned to enroll in Fall 2021—**Figure 2** displays historical data for the Education Ph.D. - Exercise Physiology track.



Figure 2. Historical data for the number of applications, admitted students, and total enrollment for the existing Education Ph.D. - Exercise Physiology track

Current enrollment in the Kinesiology M.S. program is about 60 students, thereby providing a conduit for future enrollment, while the undergraduate Kinesiology B.S. program totals roughly 1400 students with ample teaching opportunities for doctoral students. This teaching experience, coupled with the ability to conduct applied research, will result in graduates who are competitive for the growing demand for kinesiology-related faculty positions (including athletic training and physical therapy) and industry-based careers in healthcare, fitness, rehabilitation, and sport performance.

The following responses are from an internal survey conducted in October 2020 evaluating the student demand from programs at UCF for the proposed Ph.D. in Kinesiology:

- Kinesiology B.S. and Health Sciences B.S. Students
 - 51% (n=195 of 382 respondents) indicated they were "Interested" to "Extremely interested" in getting their Ph.D. in Kinesiology at UCF.
- Kinesiology M.S. Students
 - 72% (n=18 of 25 respondents) indicated they were "Interested" to "Extremely interested" in applying to the Ph.D. program in Kinesiology at UCF.
- Athletic Training M.A.T. Students
 - 61.5% (n=8 of 13 total respondents) indicated they were "Interested" to "Very interested" in applying to the Ph.D. program in Kinesiology at UCF.
- Physical Therapy D.P.T. students
 - 73% (n=65 of 92 respondents) indicated they were "Likely" to "Extremely likely" to have considered a Ph.D. option in addition to their D.P.T.

The full survey and responses are provided in Appendix E.

In 2010, an Inside Higher Ed article (<u>https://www.insidehighered.com/news/2010/08/11/quickly-growing-major</u>) noted a disconnect between the growing number of students enrolled in Kinesiology programs and the lack of well-trained academic faculty to support these programs due to very few (~1%) undergraduates pursuing graduate degrees in the field. This growth has continued as highlighted in **Figure 1** and, according to the American Kinesiology Association, there are currently 824 bachelor's, 277 Masters, and 78 doctoral programs in the United States (<u>https://www.americankinesiology.org/SubPages/Pages/Kinesiology Institution Database</u>). These changes reflect both the potential pipeline of fitness professionals seeking advanced degrees and an increased number of programs in need of teacher-scholars to support this growth. It also mirrors the continuous demand of the existing Education Ph.D. - Exercise Physiology track at UCF which is expected to continue with the shift to the currently proposed standalone Kinesiology Ph.D. program in the College of Health Professions and Sciences.

Data from the National Academy of Kinesiology shows that doctoral programs in kinesiology have demonstrated sustained growth over the past decade within the United States (**Figure 3**) and, in 2019, the average program had 19.5 students enrolled. The planned enrollment of 16

students in the existing Education Ph.D. - Exercise Physiology track for Fall 2021 expects to be easily sustained. Similar enrollment is proposed for the Kinesiology Ph.D. program during Fall 2022, which can be increased to the average size of kinesiology programs in the United States with the appropriate financial support and administrative structure over the subsequent 5-year period.





C. If substantially similar programs (generally at the four-digit CIP Code or 60 percent similar in core courses), either private or public exist in the state, identify the institution(s) and geographic location(s). Summarize the outcome(s) of communication with such programs with regard to the potential impact on their enrollment and opportunities for possible collaboration (instruction and research). In Appendix C, provide data that support the need for an additional program.

During the AY2018-2019, the Division of Kinesiology requested a CIP change for the Kinesiology BS and M.S. program to 26.0908, but feedback and guidance from the BOG staff resulted in an alternative request to 31.0505 that was approved to begin Summer 2020. As stated previously, the 31.0505 CIP adequately describes the current programmatic offerings while reflecting the positioning of the Kinesiology Ph.D. program in the School of Kinesiology and Physical Therapy. The current Ph.D. programs using the 26.0908 CIP are listed in **Table 3**. It should be noted that the existing Education Ph.D. Exercise Physiology track has co-existed with these Ph.D. programs within the state of Florida since 2010. **The proposed Kinesiology Ph.D. program will be the only doctoral degree program using the 31.0505** and the sole offering in either the 26.0908 or 31.0505 CIP in the Orlando-Kissimmee-Sanford Metropolitan Statistical Area, which had a population of over 2.5 million people in 2018.

Institution	Metropolitan	CIP	Academic Unit	Degree	Emphasis
	Statistical Area				
University of	Gainesville	26.0908	College of Health &	Exercise	Health & Human
Florida			Human Performance	Physiology Ph.D.	Performance
Florida State University	Tallahassee	26.0908	College of Human Sciences	Exercise Physiology Ph.D.	Nutrition & Exercise Physiology
University of Miami	Miami-Fort Lauderdale- Pompano Beach	26.0908	School of Education & Human Development	Exercise Physiology Ph.D.	Exercise Physiology

Table 3. Current Ph.D. programs using the 26.0908 CIP within the state of Florida

D. Use Table 1 in Appendix A (1-A for undergraduate and 1-B for graduate) to categorize projected student headcount (HC) and Full Time Equivalents (FTE) according to primary sources. Generally undergraduate FTE will be calculated as 30 credit hours per year and graduate FTE will be calculated as 24 credit hours per year. Describe the rationale underlying enrollment projections. If students within the institution are expected to change majors to enroll in the proposed program at its inception, describe the shifts from disciplines that will likely occur.

The projected enrollment in the Kinesiology Ph.D. program represents an extension of the current enrollment in the Education Ph.D. - Exercise Physiology track, which has historically varied from 7-12 doctoral students (see Figure 2) with an expected enrollment of 16 students in Fall 2021 due to both planned growth of the program through expansion of faculty mentors within the School of Kinesiology and Physical Therapy as well as extension of current dissertation timelines related to COVID-19 for several students. During Year 1, a total 16 students are expected to be enrolled, consisting of 6 new students and 10 who are currently enrolled in the Education Ph.D. - Exercise Physiology track. During Year 2, 16 students are expected to be enrolled, including 3 new students, 7 students previously admitted into the Kinesiology Ph.D. program, and 6 currently enrolled in the Education Ph.D. - Exercise Physiology track. During Year 3, 17 students are expected to be enrolled, including 8 new students and 9 students previously admitted into the Kinesiology Ph.D. program. During Year 4, 18 students are expected to be enrolled, including 7 new students and 11 students previously admitted into the Kinesiology Ph.D. program, and during Year 5, 20 students are expected to be enrolled, including 5 new students and 15 students previously admitted into the Kinesiology Ph.D. program. The increased enrollment numbers through Year 5 are expected as existing faculty elect to take on additional mentorship responsibilities, and as additional existing faculty within the School of Kinesiology and Physical Therapy become further involved with the doctoral program. The enrollment of 20 students in Year 5 represents the targeted steady-state goal which is consistent with the average size of kinesiology doctoral programs in the United States (Figure 3). FTE values for each year were calculated based on the expected course load of each student, based on the expected plan of study, described later in the Curriculum section.

E. Indicate what steps will be taken to achieve a diverse student body in this program. If the proposed program substantially duplicates a program at FAMU or FIU, provide, (in consultation with the affected university), an analysis of how the program might have an impact upon that university's ability to attract students of races different from that which is predominant on their campus in the subject program. The university's Equal Opportunity Officer shall review this section of the proposal and then sign and date Appendix B to indicate that the analysis required by this subsection has been completed.

The availability of the Kinesiology Ph.D. program at UCF with its diverse student population, including its Hispanic-Serving Institution designation, will aid in developing future faculty and scientists reflective of this diversity.

The current students in the Education Ph.D. - Exercise Physiology track and the potential prospects in the Kinesiology MS program consist of 38% women and 63% men, and 40% identify as minorities (20% Hispanic/Latino, 8% Asian, 6% Black/African American) while 60% identify as White. These demographics are similar to the national norms for kinesiology programs. According to Integrated Postsecondary Education Data System (IPEDS) data, the percentage of degree completions for Kinesiology and Exercise Science students in 2017 was 63% White, 14% Hispanic/Latino, 9% Black/African American, and 5% Asian.

It is encouraging that the Kinesiology B.S. program appears like the geographic region and more diverse than the national norms for this type of program. As of Fall 2020, 43% of the Kinesiology BS students identify as white, while 57% identify as minority students, which has become more balanced since Fall 2012 (60% white to 40% minority). Of the 57% identifying as minority students, 32% were Hispanic/Latino, and 17% were African American with the remaining identifying themselves as Asian, Multiracial, Native Hawaiian/Pacific Island, and American Indian/Alaska Native. In comparison, the 2017 U.S. Census Bureau American Community Survey reported the Orlando-Kissimmee-Sanford Metropolitan Statistical Area to be 49% White, 29% Hispanic/Latino, 15% Black/African American, and 4% Asian.

The Kinesiology MS program recently took steps to reduce potential barriers to minority/underserved students who might consider pursuing the proposed Kinesiology Ph.D. upon graduation, including removal of the GRE as an application requirement and utilization of the Senior Scholars program whereby "UCF undergraduates who meet departmental eligibility requirements may enroll in UCF graduate courses and use them toward their undergraduate degree and their graduate program of study upon admission to a UCF graduate program" (https://catalog.ucf.edu/content.php?catoid=17&navoid=1443&hl=%22senior+scholars%22&retu rnto=search#senior-scholars).

The UCF Summer Mentoring Fellowship (https://graduate.ucf.edu/wp-

<u>content/uploads/2020/01/Summer-Mentoring-Fellowship-Flyer-Online.pdf</u>) has been identified as a potential incentive to attract qualified underrepresented minority students to the program. The Director of Graduate Affairs in the College of Health Professions was recognized for a proposal aimed at enhancing diversity that as part of the Marchioli Collective Impact Ideation Competition in 2017. This award came prior to the formation of the new college but could be implemented with some of the existing framework within the Division of Kinesiology. The proposal outlined a plan for a novel cohort-based bridge program, utilizing Senior Scholars and other incentives, that would enhance the academic progression of underrepresented minority students from the undergraduate-level to the doctoral program and potential post-doctoral positions at UCF.

Finally, depending on available funding, the Division of Kinesiology has worked with Faculty Excellence and the Office of Institutional Equity to pursue targeted faculty hires to address programmatic deficiencies related to diversity.

III. Budget

A. Use Table 3 in Appendix A to display projected costs and associated funding sources for Year 1 and Year 5 of program operation. Use Table 4 in Appendix A to show how existing Education & General funds will be shifted to support the new program in Year 1. In narrative form, summarize the contents of both tables, identifying the source of both current and new resources to be devoted to the proposed program. (Data for Year 1 and Year 5 reflect snapshots in time rather than cumulative costs.)

The projected costs in Year 1 for the Kinesiology Ph.D. program represent an extension of the existing costs of the Education Ph.D. - Exercise Physiology track currently allocated by the School of Kinesiology and Physical Therapy. Specifics are described below for each budget area.

Faculty Salaries and Benefits

Faculty salary support totaling \$142,325 is budgeted in Year 1 to cover the cost of the associated faculty listed in Appendix A – Table 2. The faculty support costs primarily come from four Division of Kinesiology faculty serving in both instructional and faculty mentoring capacities (\$111,645), and one faculty each from the Division of Physical Therapy (\$12,472) and the Athletic Training Program (\$8,926) primarily serving as faculty mentors, who together comprise the core faculty for the proposed Kinesiology Ph.D. program. Three faculty from the College of Community Innovation and Education are also included in the projected faculty costs (\$9,281) because students from the proposed Kinesiology Ph.D. program have historically represented approximately 15% of the enrollment in their courses, which are included as requirements in the program curriculum. In Year 5, additional existing personnel from the School of Kinesiology and Physical Therapy are expected to contribute to the program as core faculty, primarily as faculty mentors. This, along with typically expected faculty salary escalations, leads to a total of \$182,298 in Year 5.

Assistantships & Fellowships

In Year 1, we have budgeted for 16 doctoral graduate teaching assistantships (\$18,870 each, totaling \$301,920). The assistantship support is currently provided through graduate teaching associate and/or assistant assignments within the Kinesiology B.S. program, which has historically funded 10-15 graduate students. An anticipated increase to 20 funded doctoral graduate teaching assistantships would be contingent on increased undergraduate enrollment or similar support through Year 5, increasing the total budgeted amount to \$377,400.

Library

The proposed program draws from the existing strong library resources in place from the existing Education Ph.D. - Exercise Physiology track. Based on the library assessment, we expect an ongoing annual budget of \$600 to ensure our library resources remain current and have budgeted this in each year of the program.

Expenses

General expenses of \$5,000 are included each year to cover student professional development, programmatic needs, and recruitment efforts.

B. Please explain whether the university intends to operate the program through continuing education, seek approval for market tuition rate, or establish a differentiated graduate-level tuition. Provide a rationale for doing so and a timeline for seeking Board of Governors' approval, if appropriate. *Please include the expected rate of tuition that the university plans to charge for this program and use this amount when calculating cost entries in Table 3.*

The program will adopt the standard UCF graduate tuition rates. Current rates (tuition + fees) are \$369.65 and \$1,194.05 per credit hour for in-state and out-of-state students, respectively.

C. If other programs will be impacted by a reallocation of resources for the proposed program, identify the impacted programs and provide a justification for reallocating resources. Specifically address the potential negative impacts that implementation of the proposed program will have on related undergraduate programs (i.e., shift in faculty effort, reallocation of instructional resources, reduced enrollment rates, greater use of adjunct faculty and teaching assistants). Explain what steps will be taken to mitigate any such impacts. Also, discuss the potential positive impacts that the proposed program might have on related undergraduate programs (i.e., increased undergraduate research opportunities, improved quality of instruction associated with cutting-edge research, improved labs and library resources).

Due to the existing Education Ph.D. - Exercise Physiology track, the primary resources to support the Kinesiology Ph.D. program are currently in place; however, some faculty effort within the School of Kinesiology and Physical Therapy will be reallocated to expand opportunities to additional students and faculty associated with Physical Therapy and Athletic Training. The doctoral students in the existing Education Ph.D. - Exercise Physiology track serve as graduate teaching associates/assistants, thereby providing a crucial link with undergraduate students and supporting the educational efforts of the Division of Kinesiology. While the proposed Kinesiology Ph.D. program calls for the existing Education Ph.D. - Exercise Physiology track to be modified and moved from the College of Community Innovation and Education to the College of Health Professions, many of the courses within the curriculum will remain the same, thereby limiting any negative impact on the currently involved academic units related to these changes.

The Kinesiology Ph.D. program will continue to serve as an important conduit for students involved in research opportunities while allowing a path to achieving a terminal degree for the roughly 1400 B.S. and M.S. students within the Division of Kinesiology. Being housed within the College of Health Professions and Sciences will also provide greater visibility and marketability of the option to pursue graduate studies for the nearly 4000 undergraduate students in the Department of Health Sciences and others within the newly formed Academic Health Sciences Center.

D. Describe other potential impacts on related programs or departments (e.g., increased need for general education or common prerequisite courses, or increased need for required or elective courses outside of the proposed major).

While the proposed Kinesiology Ph.D. program suggests supplementation of pre-existing kinesiology-specific research and statistics courses, three courses within the foundational research core and several potential electives will continue to be facilitated by faculty in the College of Community Innovation and Education. It is not expected that the program will require additional sections of these courses to be taught. This decision is strategic by limiting changes to existing enrollment in these courses and encouraging Kinesiology Ph.D. students to pursue the Advanced Quantitative Methodologies in Educational and Human Sciences Graduate Certificate.

The ultimate goal of this continued partnership and opportunity to share resources will allow the incoming doctoral student to gain a fundamental working knowledge of kinesiology-specific analytical tools while continuing to evolve as researchers through exposure to deeper statistical concepts.

Students in the existing Education Ph.D. - Exercise Physiology track currently take advantage of elective courses offered in a variety of academic units across campus and, due to the multidisciplinary nature of the field, they will likely continue to do so in the newly proposed Kinesiology Ph.D. program.

E. Describe what steps have been taken to obtain information regarding resources (financial and in-kind) available outside the institution (businesses, industrial organizations, governmental entities, etc.). Describe the external resources that appear to be available to support the proposed program.

Students and faculty associated with the existing Education Ph.D. - Exercise Physiology track have been consistently supported by scholarships and grants offered through the National Strength and Conditioning Association Foundation. While prior research funding has primarily come from private industry sources to support projects examining dietary supplements and ergogenic aids combined with exercise interventions across various participant populations, recent efforts have also been made to obtain support from federal agencies, such as the National Institutes of Health. With an expanded focus that incorporates additional faculty from the School of Kinesiology and Physical Therapy, additional funding opportunities are expected from private and public entities.

IV. Projected Benefit of the Program to the University, Local Community, and State

Use information from Tables 1 and 3 in Appendix A, and the supporting narrative for "Need and Demand" to prepare a concise statement that describes the projected benefit to the university, local community, and the state if the program is implemented. The projected benefits can be both quantitative and qualitative in nature, but there needs to be a clear distinction made between the two in the narrative.

The proposed Kinesiology Ph.D. program offers a clear and continual path to a terminal degree for the over 5000 undergraduate students in the College of Health Professions and Sciences, particularly those interested in pursuing graduate education in related fields in the Division of Kinesiology and the Department of Health Sciences. Moving the existing Education Ph.D. - Exercise Physiology track in the College of Community Innovation and Education to the College of Health Professions and Sciences in the form of the Kinesiology Ph.D. program will result in the Kinesiology BS and MS programs being housed in the same college and academic unit as the Ph.D. program. It will also allow for an expansion of the Kinesiology M.S. program in both student population (currently ~50) and specialization areas while bolstering research efforts for all units within the School of Kinesiology and Physical Therapy (Athletic Training, Kinesiology, and Physical Therapy).

With the demand for kinesiology-related occupations within the state of Florida expected to outpace national projections (**Table 1**) and the need for fitness professionals with advanced degrees, the Kinesiology Ph.D. program is poised to support the development of this expanding workforce through education and to guide professional practice through both research endeavors and community outreach.

Furthermore, as demonstrated in **Table 2**, kinesiology's multidisciplinary nature lends itself to contributing to economic needs by influencing a wide variety of occupational settings. Finally, the placement of the Kinesiology Ph.D. program in the College of Health Professions and Sciences in the UCF Academic Health Sciences Center, will foster additional benefits to central Florida and beyond through increased exposure and strategic collaborative efforts with industrial partners and community organizations.

V. Access and Articulation – Bachelor's Degrees Only

A. If the total number of credit hours to earn a degree exceeds 120, provide a justification for an exception to the policy of a 120 maximum and submit a separate request to the Board of Governors for an exception along with notification of the program's approval. (See criteria in Board of Governors Regulation 6C-8.014)

N/A – This section does not apply as this proposed program is a graduate degree program.

B. List program prerequisites and provide assurance that they are the same as the approved common prerequisites for other such degree programs within the SUS (see link to the Common Prerequisite Manual on <u>the resource page for new program proposal</u>). The courses in the Common Prerequisite Counseling Manual are intended to be those that are required of both native and transfer students prior to entrance to the major program, not simply lower-level courses that are required prior to graduation. The common prerequisites and substitute courses are mandatory for all institution programs listed and must be approved by the Articulation Coordinating Committee (ACC). This requirement includes those programs designated as "limited access.

If the proposed prerequisites are not listed in the Manual, provide a rationale for a request for exception to the policy of common prerequisites. NOTE: Typically, all lower-division courses required for admission into the major will be considered prerequisites. The curriculum can require lower-division courses that are not prerequisites for admission into the major, as long as those courses are built into the curriculum for the upper-level 60 credit hours. If there are already common prerequisites for other degree programs with the same proposed CIP, every effort must be made to utilize the previously approved prerequisites instead of recommending an additional "track" of prerequisites for that CIP. Additional tracks may not be approved by the ACC, thereby holding up the full approval of the degree program. Programs will not be entered into the State University System Inventory until any exceptions to the approved common prerequisites are approved by the ACC.

N/A – This section does not apply as this proposed program is a graduate degree program.

C. If the university intends to seek formal Limited Access status for the proposed program, provide a rationale that includes an analysis of diversity issues with respect to such a designation. Explain how the university will ensure that Florida College System transfer students are not disadvantaged by the Limited Access status. NOTE: The policy and criteria for Limited Access are identified in Board of Governors Regulation 6C-8.013. Submit the Limited Access Program Request form along with this document.

N/A – This section does not apply as this proposed program is a graduate degree program.

D. If the proposed program is an AS-to-BS capstone, ensure that it adheres to the guidelines approved by the Articulation Coordinating Committee for such programs, as set forth in Rule 6A-10.024 (see link to the Statewide Articulation Manual on <u>the resource page for new program proposal</u>). List the prerequisites, if any, including the specific AS degrees which may transfer into the program.

N/A – This section does not apply as this proposed program is a graduate degree program.

Institutional Readiness

- VI. Related Institutional Mission and Strength
 - A. Describe how the goals of the proposed program relate to the institutional mission statement as contained in the SUS Strategic Plan and the University Strategic Plan (see link to the SUS Strategic Plan on <u>the resource page for new program proposal</u>).

The proposed Kinesiology Ph.D. program (and existing Education Ph.D. Exercise Physiology track) links all outcomes and measures to the Priority Metrics outlined in the UCF Strategic plan, which also support the mission of the SUS to "provide undergraduate, graduate and professional education, research, and public service of the highest quality through a coordinated system of institutions of higher learning, each with its own mission and collectively dedicated to serving the needs of a diverse state and global society." Section I.D. of this proposal further addresses the ability of the program to support the State University System (SUS) Strategic Planning Goals, including specific objectives related to Excellence, Productivity, and Strategic Priorities for Knowledge Economy within three overarching points of emphasis: 1) Teaching & Learning, 2) Scholarship, Research, & Innovation, and 3) Community & Business Engagement.

The specific UCF Priority Metrics relevant to the current proposal are as follows:

- UCF Priority Metric: Growing Our Research and Graduate Programs
 - The Kinesiology Ph.D. program will contribute to increasing both research endeavors and graduate programs by creating an additional research-focused degree in the College of Health Professions and Sciences and the UCF Academic Health Sciences Center.
 - The Kinesiology Ph.D. program will continue to support and fund student research, publication and presentation opportunities, and enhanced laboratory infrastructure for more hands-on experiences.
 - Students in the Kinesiology Ph.D. program will continue to benefit from knowledgeable faculty and involvement with teaching and research endeavors focused on the translational impact of a deep understanding of human movement, applied physiology, and exercise science.
- UCF Priority Metric: Increasing Student Access, Success, and Prominence
 - Students in the Kinesiology BS and MS programs will have increased interaction with the doctoral students and the doctoral program in general and greater awareness of their path to continued educational opportunities.
 - Students in the Kinesiology Ph.D. program will continue to benefit from connections with the Institute of Exercise Physiology and Rehabilitation Science, the several ongoing Sport Science Initiatives, and various community/industry partners.
- UCF Priority Metric: Creating Community Impacts Through Partnerships
 - Graduates of the Kinesiology Ph.D. program will continue to provide a pool of teacher-scholars with the potential to serve as university faculty in kinesiologyrelated degree programs that prepare students for the workforce and to educate the communities of Central Florida and beyond.
 - The location of the College of Health Professions and Sciences in the UCF Academic Health Sciences Center will provide significantly greater opportunities for students and faculty to build on existing community partnerships as well as identify and contribute to new partnership opportunities.

B. Describe how the proposed program specifically relates to existing institutional strengths, such as programs of emphasis, other academic programs, and/or institutes and centers.

The Kinesiology B.S. and M.S. were recently re-classified within the STEM CIP Code 31.0505 (Exercise Science and Kinesiology), which falls under the Programs of Strategic Emphasis designation by the State University System of Florida Board of Governors. The undergraduate and graduate Kinesiology programs at UCF total about 1400 students, thereby providing a potential conduit for future Ph.D. applicants and enrollment.

The faculty associated with the proposed Kinesiology Ph.D. program are also representatives of the Institute of Exercise Physiology and Rehabilitation Science, which provides interdisciplinary research and industry/community outreach opportunities to students within the School of Kinesiology and Physical Therapy. The Institute of Exercise Physiology and Rehabilitation Science has several existing strengths and exciting growth opportunities. In particular, the UCF faculty's expertise in the Institute spans multiple disciplines, allowing for interdisciplinary ideas and approaches to complex problems. Future research and creative efforts within the Institute of

will draw widely on expertise in many fields relevant to the proposed Kinesiology Ph.D. program, including exercise and rehabilitation science, neuromuscular physiology, gerontology, pediatrics, musculoskeletal disease, functional biomechanics, nutrition, metabolism, and sport performance. The Institute houses research facilities that are spread across the University of Central Florida campus. All faculty and students engaged in the Institute strive to foster a supportive and collaborative environment. Ongoing projects reflective of these efforts of extending beyond the School of Kinesiology and Physical Therapy to others on campus at UCF, include engagement with the university-wide Faculty Cluster initiatives, the Florida Space Institute, UCF Athletics, and UCF Student Health Services.

Several faculty members from the School of Kinesiology and Physical Therapy have affiliations with the UCF Disability, Aging, and Technology (DAT) cluster. This cluster helps disabled people and the elderly move better and smarter and lead healthier and stronger lives. Recently, a DAT subgroup of faculty from Kinesiology, Nursing, and Engineering received an NIH R03 grant to examine the use of technology-based fall risk assessments for older adults in low-income communities (https://nursing.ucf.edu/news/study-using-technology-based-fall-risk-assessments-for-older-adults/). The technology has the potential to be used in a future study to provide virtual feedback, which may increase awareness about fall risk and facilitate communication between healthcare providers and low-income older adults. The R03 is the first federal grant that a Kinesiology faculty has ever acquired.

In addition to DAT cluster involvement, Dr. Matt Stock is collaborating with faculty members and graduate students through the Bionic Materials, Implants & Interfaces (Biionix) Cluster on multiple projects. Their main project aims to combine electromyography and ultrasonographybased assessments to understand changes in residual calf muscle function in transtibial amputees. This collaboration has led to Dr. Stock developing relationships with the VA and having the opportunity to serve as a dissertation committee member for a PhD student in Public Affairs. The group's work has thus far led to two internal proposals, and it is anticipated that external proposals will be submitted upon completion of a robust set of pilot data.

Faculty members in the School of Kinesiology and Physical Therapy are also engaged in physical medicine and rehabilitation research with clinics in the Central Florida region. These research partnerships allow the School to bridge the gap between tightly controlled laboratory-based work and "real-world" scenarios. One recent example includes Dr. Patrick Pabian working alongside Doctor of Physical Therapy students on an anterior cruciate ligament reconstruction project with clinicians at Orlando Sports Medicine. This led to a student research presentation at the Orlando Orthopedic Conference, with over 500 clinicians in attendance. Similarly, Dr. Matt Stock has worked alongside clinical partners in the submission of external grant proposals to fund research in patients suffering from brain injury at NeuLife Rehabilitation in Mount Dora. These partnerships are just two recent examples of new opportunities where PhD student involvement is needed to aid in the development of evidence-based rehabilitation strategies that will shape the future of clinical practice.

One of the Division of Kinesiology faculty, Dr. Ethan Hill, has a secondary appointment within the Florida Space Institute, through which he conducts human-related investigations to facilitate NASA's mission and vision. Part of Dr. Hill's role includes identifying and informing NASA's risks and gaps, specifically those regarding human muscle function and radiation mitigation. To enable these research opportunities, Dr. Hill and his collaborators pursue NASA-based external funding opportunities. Additionally, this secondary appointment garners student internships and collaboration opportunities within NASA-affiliated corporations including Johnson Space Center and Kennedy Space Center. Dr. Hill also utilizes the Florida Space Institute's facilities and resources and collaborates with other faculty to advance NASA's space program.

Under the umbrella of the Institute of Exercise Physiology and Rehabilitation Science, several Sport Science Initiatives have been developed with the aim of connecting practitioners with researchers through collaborative activities focused on performance assessment and athlete monitoring. These initiatives have an emphasis on student involvement with the potential to develop practical skillsets and potential research projects. While the most well-established of the Sport Science Initiatives is with UCF Athletics (<u>https://healthprofessions.ucf.edu/news/ucf-athletics-kinesiology-program-team-up-for-student-athletes-well-being/</u>), existing relationships

with professional sporting organizations and youth development academies in Central Florida and beyond have yielded the potential for future collaborations using a similar model.

The PhD Program in Kinesiology students and faculty have access to patient populations / human subjects and data collected through two major School of Kinesiology and Physical Therapy initiatives. Their involvement will continue to have an impact on the delivery of care of patient populations in both initiatives.

- The first of these initiatives is the UCF Physical Therapy Clinic, which is a partnership between the Division of Physical therapy and UCF Student Health Services. This partnership, which officially was agreed upon in June 2020, created an academic physical therapy practice involving clinical faculty from the SKPT Division of Physical Therapy. The clinical faculty have been treating patients since September of 2020 and use not only the clinical spaces for their patient care, but currently and will continue to utilize assessment devices from the IEPRS as well as consultative expertise of PhD students from the currently named program and its faculty.
- The other major initiative and strength within the institution and units involved in the PhD proposal is the UCF Physical Therapy UCF Athletics Association partnership. This agreement was made in October 2019 and involves clinical services of a clinical faculty with the SKPT Division of Physical Therapy with UCF Athletics. It involves the provision of sports physical therapy care to it athletes as well as the professional development of the sports medicine staff, strength and conditioning team, nutritionists, and other support personnel. This development of professional development was created with the intention of consultation and research involvement of School of Kinesiology and Physical Therapy faculty who possess expertise and training in sports science, sports medicine, physical therapy, nutrition, exercise science, etc.

Many of the faculty engaged in research, teaching, and creative activities associated with the Institute of Exercise Physiology and Rehabilitation Science and the proposed Kinesiology Ph.D. program have been recognized both at UCF and nationally for their work. In fact, our faculty have recently been given some of the most prestigious recognition available at UCF, including Pegasus Professor in 2021 (the highest academic award a professor can receive at the university), the Luminary Award in 2020 (for being academic leaders making an impact on the world through their studies and scholarship), and induction into the Scroll and Quill Society in 2018 (for sustained scholarly contributions, and bringing positive national and/or international attention to the institution through this scholarly work). Since 2017, several faculty have received the Research Incentive Award, which recognize "outstanding research, scholarly, or creative activity that advances the body of knowledge in a particular field, including interdisciplinary research and collaborations, and the Teaching Incentive Program awards, which recognize "in-unit employee contributions to UCF's key goals of offering the best undergraduate education available in Florida and achieving international prominence in key programs of graduate study." Faculty are only eligible for these highly competitive incentive awards every five years and the number available each year is limited.

In line with the focus of the proposed Kinesiology Ph.D. program, several associated faculty members have been recognized for their professional efforts by the National Strength and Conditioning Association, including as follows:

- Sports Medicine/Rehabilitation Specialist of the Year Award, NSCA (2019)
- Educator of the Year Award, NSCA (2015, 2017)
- Outstanding Young Investigator of the Year Award, NSCA (2016)
- C. Provide a narrative of the planning process leading up to submission of this proposal. Include a chronology in table format of the activities, listing both university personnel directly involved and external individuals who participated in planning. Provide a timetable of events necessary for the implementation of the proposed program.

A meeting held during June 2019 with Devon Jensen (UCF Graduate Studies) and Brandy Pieper (UCF Graduate Studies) concerning the admission requirements for the graduate programs managed by the Division of Kinesiology prompted the initiation of discussions regarding the future of the existing Education Ph.D. Exercise Physiology track by faculty and administrators within the School of Kinesiology and Physical Therapy (SKPT). In August 2019, it was decided that a new program proposal was required rather than a transfer of the existing track from the College of Community Innovation and Education (CCIE) to the College of Health Professions and Sciences (CHPS). Thereafter, a pre-proposal for the Kinesiology Ph.D. program was developed and reviewed by faculty and administrators within SKPT and CHPS. The New Academic Degree Program Authorization Pre-proposal form was submitted to UCF Academic Affairs in October 2019. Feedback from the CAVP Review Meeting was received during November 2019, and internal discussions continued resulting in a strategic planning meeting with CHPS leadership and Letzring/Schoenfeld in December 2019.

SKPT leadership held a subsequent meeting to establish the information needed to begin developing the full proposal, and a meeting with Timothy Letzring (UCF Academic Affairs) and Winston Schoenfeld (UCF Graduate Studies) formalized a timeline in January 2020. An initial version of the Kinesiology Ph.D. catalog copy was developed and approved by the CHPS Graduate Council in February 2020. A meeting was held with Dr. Letzring and Dr. Schoenfeld in February 2020 to evaluate an initial draft of Appendix A, and subsequent discussion resulted in the decision to extend the timeline for potential submission of the full proposal to AY 2020-2021. The existing Education Ph.D. Exercise Physiology track was evaluated as part of the SKPT 7year Academic Program Review during March 2020, and the APR results were reviewed by UCF leadership in May 2020. Actionable items from the APR results were then incorporated into the draft proposal, and letters of support were received from representatives of key professional organizations during Summer 2020. An internal survey gauging interest in the Kinesiology PhD was conducted in October 2020 with responses from the Kinesiology BS, Health Sciences, Kinesiology MS, Master of Athletic Training, and Doctor of Physical Therapy students. Several meetings took place during October 2020 with administrators from the College of Community Innovation and Education to appropriately document faculty from the Department of Learning Sciences & Educational Research who currently teach required courses included in the proposed Kinesiology Ph.D. curriculum. See Table 4 and Table 5 below.

Date	Participants	Planning Activity
June 2019	Devon Jensen, Brandy Pieper, Jeff Stout, David Fukuda, Ranetta Guinn	General discussion of admissions requirements for existing graduate programs managed by the Division of Kinesiology and CHPS Graduate Affairs
August 2019	Devon Jensen, Jeff Stout, David Fukuda, Ranetta Guinn	Discussion regarding transfer of existing PhD Ex Phys track from CCIE to CHPS. Recommendation of full proposal.
September/October 2019	David Fukuda, Jeffrey Stout, Adam Wells, Patrick Pabian, Ranetta Guinn, Linda I. Rosa-Lugo	Preparation of Kinesiology Pre- Proposal by SKPT Faculty and CHPS Graduate Affairs
October 2019	Ranetta Guinn to Danielle Hutson	New Academic Degree Program Authorization Pre-proposal form submitted to UCF Academic Affairs
November 2019	Timothy Letzring via email from Danielle Hutson to CHPS leadership	CAVP Review Meeting Feedback
December 2019	Chris Ingersoll, Jennifer Kent- Walsh, David Fukuda, Winston Schoenfeld, Timothy Letzring	CHPS PhD Proposal Meeting with CHPS leadership, UCF Academic Affairs, and UCF Graduate Studies
December 2019	Jeffrey Stout, David Fukuda, Patrick Pabian	SKPT Discussion/Planning
January 2020	Winston Schoenfeld, Timothy Letzring, Jeffrey Stout, David Fukuda, Patrick Pabian, Ranetta Guinn	Timeline Discussion with SKPT leadership, CHPS Graduate Affairs, UCF Academic Affairs, and UCF Graduate Studies
February 2020	CHPS Graduate Council	Approval of initial Kinesiology PhD catalog copy
February 2020	Winston Schoenfeld, Jeffrey Stout, David Fukuda	Appendix A Discussion
March 2020	Various	Site Visit for 7-year Academic Program Review (APR) of existing Education Ph.D. Exercise Physiology track
May 2020	Theodorea Berry, Melody Bowdon, Jana Jasinski, Elizabeth Klonoff,	Finalize 2019-20 APR Results for existing Education Ph.D. Exercise

Table 4. Planning Process for the Kinesiology Ph.D. Proposal

	Timothy Letzring, Debra Reinhart, Winston Schoenfeld, Heidi Watt, Brett Morrison, Jeffrey Stout, David Fukuda, Kristen Schellhase, Patrick Pabian, Christopher Ingersoll, Matthew Munyon	Physiology track
June 2020	Jeffrey Stout	Sent out updated program information and curriculum for review by industry leaders through American College of Sports Medicine, National Strength and Conditioning Association, International Society of Sports Nutrition, and The Center for Applied Health Sciences
July 2020	Jeffrey Stout	Receipt of letters of support for the proposal and curriculum from College of Community Innovation and Education, ACSM, NSCA, ISSN, and CAHS (Appendix G)
August 2020	Winston Schoenfeld, Jeffrey Stout, David Fukuda	Timeline update & Appendix A discussion between Kinesiology leadership and UCF Graduate Studies
October 2020	Jeffrey Stout	Internal survey sent to Kinesiology BS, Health Sciences, Kinesiology MS, Master of Athletic Training, and Doctor of Physical Therapy students regarding interest in the Kinesiology PhD program
October 2020	Glenn Lambie, Jeffrey Stout, David Fukuda	Discussion regarding appropriate accounting for faculty from the College of Community Innovation and Education who teach required courses in the proposed curriculum
October 2020	Jeffrey Stout	Receipt of letter of support from College of Health Professions and Sciences Dean Christopher Ingersoll
October 2020	Richard Hartshorne	Request for faculty CVs from the and appropriate documentation for Department of Learning Sciences & Educational Research faculty in Appendix A

Table 5. Events Leading to Implementation of the Kinesiology Ph.D. Program

Date	Implementation Activity
October 2020	CHPS Graduate Council Review of updated Kinesiology PhD catalog copy
November 2020	UCF Graduate Council Curriculum Committee (GCCC) Review
November 2020	UCF Graduate Council Program Review Committee (GCPRC) Review
April 2021	BOT Educational Programs Committee (EPC) Review
November 2021	BOG Review/Approval
December 2021	Program added to BOG and UCF Inventory
Spring 2022	Update related to materials to new program; market new program as Ph.D. in Kinesiology
Spring 2022	Develop school level advisory board
August 2022	Projected implementation of approved program

VII. Program Quality Indicators - Reviews and Accreditation

Identify program reviews, accreditation visits, or internal reviews for any university degree programs related to the proposed program, especially any within the same academic unit. List all recommendations and summarize the institution's progress in implementing the recommendations. Please include evidence that teacher preparation programs meet the requirements outlined in Section. 1004.04, Florida Statutes, if applicable.

The Kinesiology Ph.D. program will be subject to the annual Institutional Effectiveness assessment as well as the 7-year Academic Program Review process conducted by UCF Academic Program Quality, once approved.

The existing Education Ph.D. - Exercise Physiology track completed its most recent 7-year Academic Program Review during Spring 2020. The program was highlighted as having several strengths, including student-led research productivity, post-graduation job placement, and a "small, cohesive faculty" with expertise in the "scientific basis of strength and conditioning with a focus on the neuromuscular system." The external consultants encouraged the faculty's efforts to move forward with the currently proposed Kinesiology Ph.D. program to leverage both fit and sustainability within the College of Health Professions and Sciences.

Additional recommendations addressed within this proposal included decreasing the overall number of student credit-hours required beyond the M.S. degree, modifying the comprehensive exam process, and having kinesiology-specific research methods and statistics courses as part of the foundational research core curriculum. Section I.C. of this proposal further addresses the recommendations from the external consults from the eight sections of the Academic Program Review report and their impact on the development of the Kinesiology Ph.D. program.

The existing Education Ph.D. - Exercise Physiology track submitted application materials to for formal review and evaluation by the National Academy of Kinesiology for inclusion in their doctoral rankings for the last two 5-year evaluation periods. For 2010-2014, the program ranked 6th when adjusted for faculty size and 40th when unadjusted for faculty size (<u>https://nationalacademyofkinesiology.org/Content/Documents/2015 DPE Results.pdf</u>). For 2015-2019, ranked 9th when adjusted for faculty size and 32nd when unadjusted for faculty size (<u>https://nationalacademyofkinesiology.org/Content/Documents/2019 DPE Results.pdf</u>).

VIII. Curriculum

A. Describe the specific expected student learning outcomes associated with the proposed program. If a bachelor's degree program, include a web link to the Academic Learning Compact or include the document itself as an appendix.

The UCF Institutional Effectiveness Assessment is conducted on an annual basis with procedures aimed at reporting results pertaining pre-identified outcomes and measures and refining plans for future review cycles. The first full review of the existing Education Ph.D. - Exercise Physiology track within this framework was completed in 2019. The following outcomes and potential measures have been modified from the current plan to serve as a basis for the proposed Kinesiology Ph.D. program:

Outcome 1: The Kinesiology Ph.D. program will develop independent teacher-scholars who are proficient in conducting scientific research.

• Potential measures: poster presentations at the UCF Graduate Research Forum, firstauthor research manuscripts, peer-reviewed research presentations at national conferences, national/international level scholarship or grant applications

Outcome 2: The Kinesiology Ph.D. program will develop independent teacher-scholars who are skilled in delivering kinesiology-related education.

 Potential measures: Student Perception of Instruction (SPI) data for Ph.D. students serving as instructor of record for lecture-based courses, mentorship of undergraduate or master's students involved with research projects, participation in teaching-related seminars or development programs.

Outcome 3: The Kinesiology Ph.D. program will develop independent teacher-scholars who are prepared to make impactful contributions to professional organizations and/or the community.

• Potential measures: peer-reviewed research presentations at national conferences, receiving college-, university-, or national/international level awards, participation in community-related outreach events, collaboration on projects with UCF Sport Science Initiatives or other external entities/organizations.

B. Describe the admission standards and graduation requirements for the program.

Admission Standards

The Kinesiology Ph.D. program will adhere to the general UCF graduate admissions requirements for all prospective students (<u>https://graduate.ucf.edu/applying-to-ucf/</u>). Applicants will apply online (<u>https://applynow.graduate.ucf.edu/apply/</u>). All requested materials must be submitted by the established deadline. In addition to the general UCF graduate application requirements, applicants to Kinesiology Ph.D. program must provide:

- One official transcript (in a sealed envelope) from each college/university attended.
- A master's degree in a closely related field and master's level competency in research and statistics.
- Official, competitive GRE score taken within the last five years.
- Three letters of recommendation.
- Goal statement.
- Resumé/vita reflecting relevant experience.
- Writing sample.

Admission to the Kinesiology Ph.D. program will be determined by the Admissions Committee consisting of its core faculty, and the Kinesiology Ph.D. Program Coordinator (currently identified as Associate Professor David Fukuda), and the School of Kinesiology Physical Therapy Director (currently identified as Professor Jeffrey Stout).

Graduation Requirements

The graduation requirements are summarized here with a more detailed explanation of the curriculum listed in Section C below. To be certified for graduation with the PhD in Kinesiology, students must complete the following requirements as a minimum. Individual students may complete more classes, more dissertation credits or additional doctoral research credits as desired or necessary to complete the specific degree requirements.

Coursework

- 24 credit hours of required research core
- 24 credit hours of specialization electives (from an approved list)

Advancement to Candidacy

- Successful completion of Qualifying Examination/Pre-Dissertation Project to include submission and oral defense of a written manuscript or other scholarly work as detailed in the curriculum
- Proof of at least one professional certification demonstrating industry-relevant competencies
- Successful defense of written dissertation proposal

Dissertation

- 15 credit hours of dissertation work
- Successful completion and oral defense of dissertation
- C. Describe the curricular framework for the proposed program, including number of credit hours and composition of required core courses, restricted electives, unrestricted electives, thesis requirements, and dissertation requirements. Identify the total numbers of semester credit hours for the degree.

<u>Curriculum</u>

The Kinesiology Ph.D. program requires a minimum of 63 credit hours beyond the master's degree. Students must complete 24 credit hours of foundational research core courses, 24 credit hours of specialization elective courses, and 15 credit hours of Dissertation after being admitted to candidacy.

Candidacy

The following are required to be admitted to candidacy for the Kinesiology Ph.D. and to enroll in dissertation hours:

- Submission of an approved program of study.
- Completion of all graduate course work, except for dissertation hours, with an overall 3.0 GPA.
- Successful completion of the qualifying examination/pre-dissertation project.
- Proof of current professional certification(s) demonstrating industry-relevant competencies.
- Formation of a dissertation advisory committee consisting of approved graduate faculty and graduate faculty scholars.
- Successful defense of the written dissertation proposal, which serves as the candidacy examination.

Qualifying Examination/Pre-Dissertation Project

Following the formation of a qualifying examination committee consisting of the student's faculty mentor and at least two additional faculty members, the student will complete and orally defend one of the following written products:

- Original research manuscript prepared for submission to an indexed peer-reviewed journal appropriate to the field of study
- Formal literature review prepared for submission to an indexed peer-reviewed journal appropriate to the field of study
- Grant proposal prepared for submission to a funding agency appropriate to the field of study
- Pre-defined scholarly analysis or product as determined by the qualifying examination committee

The Qualifying Examination/Pre-Dissertation Project may represent a portion of the student's eventual Dissertation. However, it cannot represent the entire dissertation project. The qualifying examination committee will determine the timeframe for the evaluation of the submitted written product and, upon observation of the oral defense, will provide one of the following grading options: Pass, Conditional Pass (requiring major revision/clarifications), or Fail. Students receiving a unanimous Pass grade from the qualifying examination committee will proceed to the program's Dissertation stage. Students who do not receive a unanimous Pass grade must address the qualifying examination committee's concerns and resubmit a written product followed by an oral defense within 30 days. Individuals that do not receive a unanimous Pass grade on the 2nd attempt will be dismissed from the program.

Industry-Relevant Competencies Requirement

To demonstrate industry-relevant competencies, students will be required to provide current proof of acceptable professional certification at the time of entering candidacy. Certification may include at least one of the following:

- Certified Strength and Conditioning Specialist (CSCS) from the National Strength and Conditioning Association (NSCA)
- Certified Performance and Sport Scientist (CPSS) from the NSCA
- Certified Exercise Physiologist (ACSM-EP) from the American College of Sports Medicine (ACSM)
- Certified Sports Nutritionist from the International Society of Sports Nutrition (CISSN)
- Certified athletic trainer (ATC) credential through the Board of Certification (BOC)
- Physical therapy licensure through the Federation of State Boards of Physical Therapy
- Registered Dietitian (RD) credential through the Commission on Dietetic Registration
- Other professional certification(s) as approved by the student's faculty mentor and the graduate program director

Dissertation

Following the formation of a dissertation advisory committee (DAC), consisting of the student's faculty mentor and a minimum of three additional faculty members, one of whom must be a faculty member from outside the student's program, doctoral students will prepare a written dissertation proposal and orally present it to the DAC who will each provide one of following grading options: Pass, Conditional Pass (requiring major revision/clarifications), or Fail. The written and oral dissertation proposal will serve as the Candidacy Examination and must be successfully completed, as indicated by a unanimous Pass grade by the DAC, prior to entering candidacy status. Students that do not receive a unanimous Pass grade must address the concerns raised and resubmit the revised written dissertation proposal, followed by an additional

oral defense within 30 days. Individuals that do not receive a unanimous Pass grade on the 2nd attempt will be dismissed from the program.

Upon successful completion of the dissertation project, students will prepare a written dissertation as outlined by the College of Graduate Studies (<u>https://graduate.ucf.edu/graduate-guide/advising-thesis-and-dissertation-students</u>) and orally defend it to the DAC who will provide one of the following grading options: Pass, Conditional Pass (requiring major revision/clarifications), or Fail. A majority of the DAC recommending a Pass grade will indicate the successful completion of the Dissertation. Students that do not receive a majority Pass grade by the DAC must address the concerns raised and resubmit the revised written Dissertation, followed by an additional oral defense within 30 days. Individuals that do not receive a majority Pass grade on the 2nd attempt will be dismissed from the program.

D. Provide a sequenced course of study for all majors, concentrations, or areas of emphasis within the proposed program.

Table 5. Kinesiology Ph.D. Program – Example 3-year Plan of Study

Kinesiology Ph.D. Program – Year 1
Fall (Semester Total: 9 credit hours)
IDS 7501 - Issues and Research in Education (3 hours)
Specialization Courses (6 nours) ***Completed Plan of Study***
Completed Flan of Study
Spring (Semester Total: 9 credit hours)
 EDF 7403 - Quantitative Foundations of Educational Research (3 hours)
IDS 7500 - Seminar in Educational Research (3 hours)
Specialization Course (3 hours)
Summer (Semester Total: 6 credit hours)
APK 6703 - Statistical Methods in Kinesiology (3 hours)
Specialization Course (3 hours)
Kinesiology Ph.D. Program – Year 2
Fall (Semester Total: 9 credit hours)
APK 6/13 - Research Methods In Kinesiology (3 hours) EDE 7405 - Quantitativa Mathada II (2 hours)
 EDF 7405 - Quantitative Methods II (5 hours) Specialization Course (3 hours)
Spring (Semester Total: 9 credit hours)
 IDS 7500 - Seminar in Educational Research (3 hours)
Specialization Course (6 hours)
^^^ Qualifying Examination/Pre-Dissertation Project^^^
Summer (Semester Total: 6 credit hours)
APK 7981 Dissertation Proposal Preparation (3 hours)
Specialization Course (3 hours)
*** Dissertation Proposal***
Kinesiology Ph.D. Program – Year 3 Fall (Semester Total: 6 credit hours)
PET 7980 - Dissertation Research (6 hours)
Spring (Semester Total: 6 credit hours)
PET 7980 - Dissertation Research (6 hours)
Summer (Semester Total: 3 credit hours)
PET 7980 - Dissertation Research (3 hours)

E. Provide a one- or two-sentence description of each required or elective course. For degree programs in medicine, nursing, and/or allied health, please identify the courses that meet the requirements in Section 1004.08, Florida Statutes for required patient safety instruction.

Foundational Research Core Courses

- APK 6703 Statistical Methods in Kinesiology Overview of the statistical evaluation in kinesiology; analysis of data, descriptive and inferential statistics, interpretation of results.
- APK 6713 Research Methods in Kinesiology *Examination of scientific inquiry and the research-based development of knowledge within the discipline of kinesiology.*
- EDF 7403 Quantitative Foundations of Educational Research Examination of appropriate methods in applied educational contexts. Consideration of analysis strategies for educational data, emphasis on identification, and interpretation of findings.
- EDF 7405 Quantitative Methods II Correlation, regression, path analysis, and structural equation modeling in educational studies. Use of path analysis and structural equation modeling to test theory.
- IDS 7500 Seminar in Educational Research An examination of education-related research initiatives.
- IDS 7501 Issues and Research in Education An examination of major issues impacting education and related practical and methodological issues in Research.
- APK 7981 Dissertation Proposal Preparation Theoretical and practical development of dissertation project(s) and preparation for dissertation proposal prior to entering candidacy.

Specialization Elective Courses

Kinesiology Elective Courses

- PET 6096 Youth Physical and Athletic Development This class will introduce concepts associated with sport and physical activity development in youth athletes. A multi-factorial, systematic approach to the development process, including discussion of key factors, such as physical literacy, talent identification, specialization, etc. will be presented. Students will also become familiar with the theory and practice of strength and conditioning for children and young athletes.
- PET 6335 Functional Anatomy and Kinesiology Overview of functional anatomy and fundamental movements from a biomechanical perspective.
- PET 6357C Environmental Perturbation and Human Performance A study of physiological adaptation resulting from prescribed physical activity programs.
- PET 6363 Dietary and Nutritional Supplementation for Athletic Performance An in-depth study of the efficacy of dietary and nutritional supplements used to enhance athletic performance and improve activities of daily living.
- PET 6366 Exercise, Nutrition, and Weight Control *Explores the interrelationship between nutrition, energy metabolism, and exercise performance.*
- PET 6372 Physical Activity and Nutritional Epidemiology Overview of the epidemiology of physical activity, sedentary behavior and nutrition, and the interaction of physical activity and nutrition with disease from a global and cultural perspective.
- PET 6376 Sport Nutrition Study of the proper nutrition for training, the role of macro and micronutrients on the physiological processes of the body, and the importance of nutrient timing.
- PET 6381 Physiology of Neuromuscular Mechanisms *Human body morphology and function critical in producing motion, strength, power, and endurance.*
- PET 6388 Cardiovascular Physiology Operation of the cardiovascular system in vivo.
- PET 6389 Exercise Physiology II An in-depth study of adaptations of various physiological systems to exercise training and the effects of environmental factors on physiological systems and performance.
- PET 6395 Program Design in Strength and Conditioning An in-depth study of various types of training, including insights on developing athletes' strength, power, anaerobic conditioning, endurance, agility, and speed.
- PET 6515 Assessment and Evaluation in Kinesiology *Techniques of assessment and evaluation of human performance and their applications to kinesiology.*
- PET 6521 Exercise Physiology Instrumentation Instrumentation management and assessment protocols related to select exercise physiological parameters: anthropometric, bioenergetic, blood lactate, joint flexibility, and muscle rheology, strength, and fatigue curve measurements.

- PET 6910 Problem Analysis Review of Literature Comprehensive review of literature related to a selected topic in kinesiology: identification, analysis, and evaluation of developments, issues, and research problems.
- PET 6690 Exercise Prescription for Special Populations Designed to provide the student with a basic understanding of exercise testing and prescription as it pertains to special populations.
- PET 7365 Cardiovascular Dynamics During Exercise An examination of the cardiovascular regulatory mechanism responsible for the adjustment to acute and chronic exercise.
- PET 7368 Regulation of Metabolism During Exercise An examination of the metabolic regulatory mechanism responsible for the adjustment to acute and chronic exercise.
- PET 7387 Exercise Endocrinology *An in-depth study of the neuroendocrine system and the hormonal responses to exercise.*
- PHT 6115C Gross Anatomy/Neuroscience I Study of human anatomy via lecture and cadaver dissection emphasizing upper and lower extremity, musculoskeletal, peripheral vascular, and peripheral nervous systems, thoracic and abdominopelvic cavities.
- PHT 6118C Gross Anatomy/Neuroscience II Comprehensive study of anatomy and physiology of the nervous system to develop DPT students' improved treatment strategies for patients with neurological problems.

Advanced Quantitative Methodologies Elective Courses

- EDF 7406 Multivariate Statistics in Education Statistical methods that simultaneously analyze multiple measurements on an individual or object under investigation.
- EDF 7410 Application of Nonparametric and Categorical Data Analysis in Education -Application of nonparametric and categorical data analysis procedures to education. Topics: nonparametrics for single samples, paired samples, independent samples, logistic regression, contingency tables, and logit models.
- EDF 7474 Multilevel Data Analysis in Education The course will consider the statistical foundations of multilevel linear models, also known as hierarchical linear models (HLMs), and focuses on their application in education and behavioral sciences.
- EDF 7488 Monte Carlo Simulation Research in Education *Students are taught how to generate univariate and multivariate data under various parametric conditions for the purpose of exploring the limits of analytical procedures.*
- F. For degree programs in the science and technology disciplines, discuss how industrydriven competencies were identified and incorporated into the curriculum and indicate whether any industry advisory council exists to provide input for curriculum development and student assessment.

The curriculum for the proposed Kinesiology Ph.D. program has been updated from the existing Education Ph.D. - Exercise Physiology track, which was developed through practical experience and industry interaction, including faculty participation in professional organizations and completion of industry-funded projects. Industries involved in these projects included 4D LLC, Advent Health, CureWave Lasers, Glucose Health Inc., and TSI Group Ltd. One of the revisions to the curriculum includes students demonstrate industry-relevant competencies, through completing acceptable professional certification at the time of entering candidacy.

An additional way these industry interactions occurred was with representatives from the American College of Sports Medicine (ACSM), the National Strength and Conditioning Association (NSCA), the International Society of Sports Nutrition (ISSN), and the Center for Applied Health Sciences (CAHS), four leading industry related organizations around kinesiology and related fields. ACSM has more than 50,000 members and certified professionals from 90 countries around the globe. These members represent over 70 occupations within the sports medicine field including personal trainers, physicians, sports medicine, exercise science, and health and fitness professionals. Similarly, NSCA is a professional association dedicated to advancing the strength and conditioning and related sport science professions around the world. The NSCA community is composed of more than 60,000 members and certified professionals throughout the world who further industry standards as researchers, educators, strength and conditioning coaches, performance and sport scientists, personal trainers, tactical professionals, and other related roles. The ISSN coordinates research and industry around science-based

sports nutrition and supplement information. Industry leaders in the organization are exercise physiologists, fitness professionals, nurse practitioners, nutritionists, personal trainers, sport dietitians, sports nutritionists, and strength and conditioning professionals. The Center for Applied Health Sciences (CAHS) is a privately held, full-service CRO (Contract Research Organization) specializing in the rapid completion of human clinical trials. The Center is assisted and advised by an international network of physicians, scientists, and industry professionals whom are experts in the fields of medicine, research design, applied physiology, nutrition, and professional ethical standards. Furthermore, representatives from these four industry connected organizations have provided letters of support for this proposal that demonstrate the program's impact on industry and professional practice. Excerpts from the letters are provided below.

- Dr. NiCole Keith, ACSM President, stated: "ACSM has enjoyed having UCF students present their research at our regional and national conferences. I believe the newly proposed Ph.D. program will reinforce what has been accomplished and, in my opinion, elevate the education and research that will benefit our profession and society as a whole."
- Dr. Travis Triplett, NSCA President, stated: "I am a strong supporter of the proposed Ph.D. program at the University of Central Florida. I firmly believe that this program will shape graduates into active and energetic leaders. The analytical skills that will be instilled in these diverse groups of young men and women will contribute to the overall scientific body of knowledge and education in physical medicine locally, statewide, and nationally...As you are aware, UCF students have been leaders within the NSCA, presenting their research, successfully applying for grants, and winning national awards and scholarships at our national conferences. I believe the newly proposed Ph.D. program will reinforce what has been accomplished and, in my opinion, elevate the education and research that will benefit society as a whole."
- Dr. Jose Antonio, CEO of ISSN, and Dr. Shawn Arent, ISSN President, stated: "The students from the UCF program have presented over the past ten years at our national conference and have represented the program extremely well...The research they have published and the outstanding students they have graduated is a testament to a great program at the University of Central Florida."
- Tim Ziegenfuss, Chief Scientific Officer, CAHS, found that the "proposed Kinesiology Ph.D. program at the University of Central Florida fosters a curriculum and research engagement consistent with potential future CAHS employees. The core curriculum and elective course offerings would facilitate knowledge that could be applied to CAHSrelated functions, including research methods and clinical trials, substantial experiences conducting human clinical trials, and an understanding of food, dietary supplements, and drug interactions with exercise on health and performance."

Connections to industry leaders is also demonstrated through their sponsorship of the inaugural Institute of Exercise Physiology and Rehabilitation Science Conference held virtually Spring 2021. Sponsors included Delsys Incorporated, Atlas Rehabilitation, Biodex Medical Systems, NeuLife Rehab, B Physical Therapy Oviedo, TriPT, COSMED, Jali Medical, and Prevail Strength and Conditioning. Finally, the Institute of Exercise Physiology and Rehabilitation Science is currently in the process of developing an External Advisory Board consisting of university, industry, and community experts with a mission to provide guidance, strategic direction, and advocacy to its director and key stakeholders. Representatives from each of the units within the School of Kinesiology and Physical Therapy have been asked to suggest potential members of the External Advisory Board, and some of the preliminary goals are to recruit professionals from sports medicine staff involved with elite athletes, contract research organizations, aerospace research and development, human performance/fitness centers, and/or military-based organizations. One of the tasks of the External Advisory Board will be to provide unbiased, outside perspectives and evaluation of the Kinesiology PhD program during biannual meetings. This information will be taken under consideration while supporting the ongoing curriculum improvement processes of the Kinesiology graduate programs at UCF.

G. For all programs, list the specialized accreditation agencies and learned societies that would be concerned with the proposed program. Will the university seek accreditation for the program if it is available? If not, why? Provide a brief timeline for seeking accreditation, if appropriate.

No specialized accreditation agencies exist for graduate programs within the field of Kinesiology. Representatives from several learned societies concerned with kinesiology-related graduate education, including the American College of Sports Medicine, the National Strength and Conditioning Association, and the International Society of Sports Nutrition, have provided letters of support for the proposed Kinesiology Ph.D. program (**Appendix G**).

H. For doctoral programs, list the accreditation agencies and learned societies that would be concerned with corresponding bachelor's or master's programs associated with the proposed program. Are the programs accredited? If not, why?

Accreditation of kinesiology-related B.S. and M.S. programs has yet to become common practice with only a few SUS institutions being accredited through the Commission on Accreditation of Allied Health Education Programs (via the Committee on Accreditation for the Exercise Sciences), including University of West Florida and University of North Florida at the undergraduate level for exercise science, and University of North Florida at the graduate level for exercise physiology. Notably, none of the existing SUS programs that offer doctoral degrees in the 26.0908 CIP currently accredited (as of 12/15/2020;

<u>https://www.caahep.org/Students/Find-a-Program.aspx</u>). Recent changes to the industry-based certification programs offered by the National Strength and Conditioning Association and the American College of Sports Medicine have prompted the Division of Kinesiology to form a task force during Spring 2021 specifically aimed at pursuing accreditation opportunities in the best interest of our students. The work of this proposed task force is also timely considering the recent alignment of our undergraduate and graduate programs within the 31.0505 CIP. -

I. Briefly describe the anticipated delivery system for the proposed program (e.g., traditional delivery on main campus; traditional delivery at branch campuses or centers; or nontraditional delivery such as distance or distributed learning, self-paced instruction, or external degree programs). If the proposed delivery system will require specialized services or greater than normal financial support, include projected costs in Table 3 in Appendix A. Provide a narrative describing the feasibility of delivering the proposed program through collaboration with other universities, both public and private. Cite specific queries made of other institutions with respect to shared courses, distance/distributed learning technologies, and joint-use facilities for research or internships.

A traditional face-to-face delivery system on the main campus will be used for the proposed Kinesiology Ph.D. program.

IX. Faculty Participation

A. Use Table 2 in Appendix A to identify existing and anticipated full-time (not visiting or adjunct) faculty who will participate in the proposed program through Year 5. Include (a) faculty code associated with the source of funding for the position; (b) name; (c) highest degree held; (d) academic discipline or specialization; (e) contract status (tenure, tenure-earning, or multi-year annual [MYA]); (f) contract length in months; and (g) percent of annual effort that will be directed toward the proposed program (instruction, advising, supervising internships and practica, and supervising thesis or dissertation hours).

Faculty participation is largely derived from that of our current Education Ph.D. - Exercise Physiology track. For Year 1, four full-time faculty (D. Fukuda, E. Hill, J. Stout, A. Wells) from the Division of Kinesiology will participate in instruction and serve in formal mentoring roles for doctoral students. E. Hill and A. Wells are on 9-month contracts with an expected 20% effort for the doctoral program. J. Stout, Director of the School of Kinesiology and Physical Therapy, is on a 12-month contract with an expected 15% effort for the doctoral program. D. Fukuda (9-month contract with 30% effort for the doctoral program) currently serves as the graduate program coordinator for the Division of Kinesiology, which encompasses the administrative duties of the Education Ph.D. - Exercise Physiology track and will continue in this role for the Kinesiology Ph.D. program.

One faculty member from Athletic Training (C. Mangum) and one faculty member from Physical Therapy (M. Stock) serve in formal mentoring roles for doctoral students. C. Mangum and M.

Page 32 of 160

Stock are on 9-month contracts with 10% effort to the doctoral program.

It is expected additional existing faculty from Physical Therapy (W. Hanney, New Hire from active search) will engage in formal mentoring roles for doctoral students by Year 5. Both faculty will be on 9-month contracts with 10% effort to the doctoral program.

Three faculty from the Department of Learning Sciences and Educational Research in the College of Community Innovation and Education (M. Gill, D. Hahs-Vaughn, and S. Sivo) have been allocated 2% effort because students from the proposed Kinesiology Ph.D. program have historically represented ~15% of the enrollment in their courses, which are included as requirements in the revised program curriculum.

B. Use Table 3 in Appendix A to display the costs and associated funding resources for existing and anticipated full-time faculty (as identified in Table 2 in Appendix A). Costs for visiting and adjunct faculty should be included in the category of Other Personnel Services (OPS). Provide a narrative summarizing projected costs and funding sources.

The projected costs for faculty in Year 1 (\$142,325) for the Kinesiology Ph.D. program represent the existing and ongoing costs of the Education Ph.D. - Exercise Physiology track. The faculty support costs primarily come from four Division of Kinesiology faculty serving in both instructional and faculty mentoring capacities (\$111,645), and 1 faculty each from the Division of Physical Therapy (\$12,472) and the Athletic Training Program (\$8,926) primarily as faculty mentors, who together comprise the core faculty for the proposed Kinesiology Ph.D. program. Three faculty from the Department of Learning Sciences and Educational Research in the College of Community Innovation and Education are also included in the projected faculty costs (\$9,281) because students from the proposed Kinesiology Ph.D. program have historically represented about 15% of the enrollment in their courses, which are included as requirements in the revised program curriculum. In Year 5, the total faculty cost rises to \$182,298. This increase is due to expected salary escalation from the involved faculty, and the additional involvement from two faculty (one is a new hire) from the School of Kinesiology and Physical Therapy.

C. Provide in the appendices the abbreviated curriculum vitae (CV) for each existing faculty member (do not include information for visiting or adjunct faculty).

Abbreviated curriculum vitae for SKPT faculty to be associated with the proposed Kinesiology Ph.D. program through Year 5 are included in **Appendix F** and brief summaries of the faculty research/teaching areas of the proposed faculty are provided below.

David Fukuda, Associate Professor: Ph.D. in Exercise Physiology, 2012, University of Oklahoma.

Research methods, Exercise physiology, Performance-based testing methodologies, Exercise training, and nutritional interventions in varying populations, Fatigue thresholds, and metabolic responses to exercise, Martial arts and combat sports.

<u>Ethan Hill, Assistant Professor</u>: Ph.D. in Exercise Physiology, 2019, University of Nebraska-Lincoln.

Environmental physiology, Statistics, Neuromuscular and endothelial function, Resistance training interventions, Muscle function and fatigue, Sex-specific responses to exercise, Eccentric contraction-based interventions.

<u>Jeffrey Stout, Professor</u>: Ph.D. in Exercise Physiology, 1995, University of Nebraska-Lincoln. Sport nutrition, Ergogenic aids, Validity and reliability of body composition assessment methodologies, Exercise training and nutritional interventions in varying populations, Fatigue thresholds and metabolic responses to exercise.

Adam Wells, Assistant Professor: Ph.D. in Education - Exercise Physiology, 2015, University of Central Florida.

Exercise physiology, Assessment and evaluation, Supplements for performance and recovery, Inflammatory and immune responses to resistance exercise, Soccer performance.

William Hanney, Associate Professor: Ph.D. in Physical Therapy, 2012, Nova Southeastern

Page 33 of 160

University.

Treatment outcomes for patients with low back and neck pain, The influence of manual/manipulative therapy, Standardization of physical therapy interventions, Physical therapy practice patterns.

<u>Matt Stock, Associate Professor</u>: Ph.D. in Exercise Physiology, 2012, University of Oklahoma. Aging, Motor unit control, Neuromuscular physiology, Strength training, Fatigue.

L. Colby Mangum, Assistant Professor: Ph.D. in Sports Medicine, 2018, University of Virginia. Lumbopelvic-hip complex muscle function, Musculoskeletal ultrasound imaging, Core stability and athletic function, Innovative assessment and treatment of chronic low back pain, Patellofemoral pain.

<u>Michelle Gregoire Gill, Professor</u>: Ph.D. in Education Psychology, 2002, University of Florida. Conceptual Change, Teachers' Beliefs, Mathematics Education, Teacher Reform.

Debbie Hahs-Vaughn, Professor: Ph.D. in Educational Research, 2003, University of Alabama. Complex Survey Data, Quantitative Statistics, Program Evaluation

Steven Sivo, Professor: Ph.D. in Education Psychology, 1997, Texas A&M University.

- Statistical Analysis, Survey Research, Test Development, Program Evaluation
- D. Provide evidence that the academic unit(s) associated with this new degree have been productive in teaching, research, and service. Such evidence may include trends over time for average course load, FTE productivity, student HC in major or service courses, degrees granted, external funding attracted, as well as qualitative indicators of excellence.

Faculty within the individual academic units represented by SKPT have garnered awards and leadership positions at UCF and their respective professional organizations. The awards and service activities reported during the recently completed Academic Program Review are included within the faculty vitae in **Appendix F**.

With respect to teaching, SKPT faculty received the Teaching Incentive Program award, which "recognizes in-unit employee contributions to UCF's key goals of offering the best undergraduate education available in Florida and achieving international prominence in key programs of graduate study" each year between 2015 and 2019. Tenure-track faculty within the Division of Kinesiology are typically assigned one graduate course per semester, contributing to the existing Education Ph.D. Exercise Physiology track and adequate research FTE to support ongoing student-related projects. Key non-tenure-track and adjunct faculty are also assigned instructional duties as needed, considering their relevant expertise.

The National Academy of Kinesiology 2020 Review and Evaluation of Doctoral Programs in Kinesiology recently evaluated 43 doctoral programs in the United States (<u>https://nationalacademyofkinesiology.org/Content/Documents/2019%20DPE%20Results.pdf</u>), The existing Education Ph.D. Exercise Physiology track ranked in the top 20 (relative to faculty size) for six of the nine components related to faculty indices as noted in Table 6.

Table 6. Select rankings (relative to faculty size) of faculty indices from the National Academy ofKinesiology 2020 Review and Evaluation of Doctoral Programs in Kinesiology

#	Publications	Book Chapters	Presentations
1	University of Mississippi	Pennsylvania State University	University of Arkansas
2	University of Central Florida	University of Connecticut	University of Connecticut
3	University of Connecticut	Teachers College, Columbia University	Ohio State University
4	University of South Carolina	University of Minnesota	Rutgers University
5	University of North Carolina, Chapel Hill	University of Texas, Austin	University of North Carolina, Chapel Hill
6	University of Utah	Rutgers University	University of South Carolina
7	Syracuse University	Ohio State University	University of Southern California
8	Rutgers University	University of South Carolina	Teachers College, Columbia University
9	University of Virginia	University of Illinois, Urbana-Champaign	University of Alabama
10	Teachers College, Columbia University	University of Utah	University of Virginia
11	University of Illinois, Urbana-Champaign	University of Virginia	University of Illinois, Chicago
12	Ohio State University	University of Georgia	University of Illinois, Urbana-Champaign
13	Pennsylvania State University	University of Maryland	Pennsylvania State University
14	University of Texas, Austin	University of Arkansas	Auburn University

15	Auburn University	University of North Carolina, Greensboro	East Carolina University
16	Michigan State University	University of Tennessee, Knoxville	University of Central Florida
17	Virginia Commonwealth University	University of Central Florida	University of Michigan
18	University of Florida	Michigan State University	University of Delaware
19	Indiana University	Indiana University	Indiana University
20	University of Arkansas	University of Michigan	University of Florida

#	Non-Federal Funding	Internal Funding	National Fellows
1	University of Connecticut	University of Virginia	Ohio State University
2	University of North Carolina, Chapel Hill	University of Florida	University of Virginia
3	University of South Carolina	University of Wisconsin, Madison	Rutgers University
4	University of Michigan	University of Central Florida	University of Minnesota
5	University of Texas, Austin	Teachers College, Columbia University	University of Texas, Austin
6	University of Delaware	Indiana University	University of South Carolina
7	University of Illinois, Urbana-Champaign	Rutgers University	Oregon State University
8	Ohio State University	University of Nebraska, Omaha	Indiana University
9	University of Wisconsin, Madison	Colorado State University	University of Southern California
10	University of Virginia	University of Texas, Austin	University of Massachusetts, Amherst
11	Colorado State University	University of Massachusetts, Amherst	University of Central Florida
12	University of Arkansas	East Carolina University	University of Connecticut
13	University of Utah	University of Illinois, Urbana-Champaign	University of North Carolina, Chapel Hill
14	Indiana University	Purdue University	University of Illinois, Chicago
15	University of Maryland	University of Connecticut	University of Michigan
16	Auburn University	Ohio State University	Iowa State University
17	Pennsylvania State University	Auburn University	University of Georgia
18	Iowa State University	University of Alabama	University of Utah
19	University of Illinois, Chicago	Virginia Commonwealth University	University of North Carolina, Greensboro
20	University of Central Florida	University of North Carolina, Chapel Hill	Auburn University

This productivity extends to doctoral students working with SKPT faculty. Since 2014, 15 students have graduated from the existing Education Ph.D. Exercise Physiology track. According to Web of Science data, the doctoral students have averaged approximately 4 lead author publications during their time in the program. Most doctoral students have also presented annually at the UCF Graduate Research Forum and at least one national conference.

X. Non-Faculty Resources

A. Describe library resources currently available to implement and/or sustain the proposed program through Year 5. Provide the total number of volumes and serials available in this discipline and related fields. List major journals that are available to the university's students. Include a signed statement from the Library Director that this subsection and subsection B have been reviewed and approved.

Existing resources adequately support the School of Kinesiology and Physical Therapy and the Education Ph.D. Exercise Physiology track. The following memorandum was prepared by the UCF Library in order to support the proposed Kinesiology Ph.D. program.

MEMO

- To: Dr. Christopher D. Ingersoll, College of Health Professions and Sciences, Dean
 - Dr. Jeffrey Stout, School of Kinesiology and Physical Therapy, Director
 - Dr. David Fukuda, Division of Kinesiology, College of Health Professions and Sciences, Chair
 - Ms. Ying Zhang Interim Associate Director, Collection Services & Resource Management
 - Ms. Sara Duff, Acquisitions Librarian
 - Mr. Frank Allen, Interim Director of Libraries
 - Dr. Devon Jensen, Associate Dean, College of Graduate Studies
 - Ms. Emily Stettner, Assistant Director, Graduate Curriculum

Page 36 of 160
From: Terrie Sypolt, Subject Librarian for Kinesiology, Physical Therapy and Athletic Training

Subject: Kinesiology, PhD Library Analysis

Date: September 9, 2020

Peer Comparisons

When reviewing library support (databases, journal titles, and books) for the proposed Kinesiology PhD, David Fukuda, Division of Kinesiology, College of Health Professions and Sciences, Chair and I selected the following institutions for comparison:

- Florida State University, Exercise Physiology, PhD; Nutrition, Food & Exercise Sciences, PhD (#39)
- Pennsylvania State University, Kinesiology, PhD (#9)
- University of Florida, Applied Physiology & Kinesiology, PhD (#4)
- University of South Carolina, Exercise Science, Applied Physiology track, PhD; Exercise Science, Health Aspects of Physical Activity track, Exercise Science, Rehabilitation Sciences track, PhD (#1)
- University of Southern California, Biokinesiology, PhD (#15)
- University of Virginia, Education, Kinesiology for Individuals with Disabilities, PhD (#9)

Numbers behind the institutions indicate National Academy of Kinesiology (NAK) rankings from 2015. UCF is ranked #6. institutions are all ranked and have curriculum similar to the one that UCF is proposing although the program emphasis may be different.

Summary and Projected Costs for New Library Resources

Since the University of Central Florida offers a Ph.D. degree in Education, Exercise Physiology track, we have acquired many resources that will also support this new Kinesiology PhD. The UCF Libraries' current journal and database holdings will meet the needs for the proposed doctoral program, and therefore no immediate subscription costs are requested (see full analysis below). The only databases we lack that others have is Sports Medicine & Physical Education Index. While the Sports Medicine & Physical Education Index would be beneficial, it is not crucial to this program since it is largely a physical education index. Access Physiotherapy is held by only one institution and therefore not deemed necessary for this proposed program. While UCF would benefit from having the full-text version of SportDiscus, we do have the indexing that allows us access to the citations. That suffices since we have many of the sources full-text available in other databases or from publishers. Heath Source will be dropped January, 2021 because of budget cuts. Three of the peer institutions have it and three do not, but they are all facing budget cuts also. UCF has the resources needed to support the proposed program without HealthSource.

UCF has all of the journals listed but 2. Only the University of Florida has more. UF lacks only one journal title. (See analysis below). *Sports Medicine* is held by only 3 of the 6 peer institutions. UCF has access to the open articles in this journal (as do 3 of the peer institutions) and can purchase other needed articles from the publisher at \$45.00 per article. We don't have money to purchase SportDiscus full-text where *Advances in Exercise and Sports Physiology* articles are available, but articles are available for purchase at \$21.00 per article from the publisher. Should the demands for either one of these titles warrant purchase as the program progresses, the department would be expected to supply the recurring funds to purchase it.

Expected budget cuts may reduce our holdings starting from January 1, 2021. For example, unbundling the T&F package to only subscribing to a list of essential journals that are heavily used and identified as

critical to Kinesiology would reduce journal holdings. Articles from dropped titles may be available via interlibrary loan (ILL) in accordance with copyright law. In case ILL cannot obtain them due to copyright restrictions, articles could be available from the publisher for a fee that will be paid by the student or faculty member needing the material. The same resources, and process, will be needed not only for the newly proposed degree, but also for all existing ones. Most institutions will be undergoing the same process, so journal cuts will occur at most, if not all, academic institutions.

In the event any new key journal or database becomes critical for the Kinesiology PhD in the future, additional recurring funding will need to be provided to the Libraries to add these resources. Also note that in the unfortunate event library budget shortfalls occur, some existing resource subscriptions may be cut or scaled back.

Book comparisons with the peer institutions chosen to show that UCF compares favorably with them and has the books needed to support the doctoral program in the area of Kinesiology. (See analysis below). UCF has the eBook databases it needs to support the proposed Kinesiology PhD program also.

Our Reference books compare favorably to the chosen peer institutions. The only reference book title we lack is the Gale Encyclopedia of Fitness which is not essential for the proposed new program. We will request \$600.00 per year for the next 5 years in case new reference books are needed. Money will be used to supplement the general book collection if it is not needed for reference books.

	2020-	2021-	2022-	2023-	2024-	2025-2026
	2021	2022	2023	2024	2025	
Databases	0	0	0	0	0	0
Journals	0	0	0	0	0	0
Books	0	0	0	0	0	0
Reference Books	600	600	600	600	600	600
Total	600	600	600	600	600	600

Projected costs needed to acquire library materials to support the new Kinesiology PhD program:

Recurring Subscriptions Supporting the Kinesiology PhD Analysis:

Databases

Databases	UCF	UF	FSU	U So Car	UVA	Penn State	USC
PubMed	x	x	x	x	x	x	х
Ovid Medline/Medline	х	х	х	х	х	х	х
Academic Search	х	х	х	х	х	х	
Premier/Complete							
Access Physiotherapy							х
APA PsycInfo	х	х	х	х	х	х	х
BioMed Central (open access)	х	х	х	х	х	х	х
BIOSIS Citation Index/Biological	х	х	х	х	х	х	х
Abstracts							
CINAHL Plus with Full	х	х	х	х	х	х	х
Text/Complete							
Cochrane Library	х	x	x	x		х	х
Compendex (Ei Engineering	х	х	х	х	х	Х	Х
Village)							

Databases	UCF	UF	FSU	U So	UVA	Penn	USC
			_	Car		State	
Education Database (ProQuest)	х	Х				Х	
Education Source/Education	x	х	х	х	х		х
Research Complete/Education							
Full Text							
ERIC (EBSCOhost)	х	х	х	х	х	х	х
Google Scholar	x	x	х	х	x	x	x
Health & Wellness Resource	х	х	х				х
Center							
Health Source: Nursing Academic	Will be	х		х	х		
Edition	dropped						
	Jan, 2021						
JCI: Journal Citation Index	х	х	х	х	х	х	х
LWW Health Library: Medical	х	х	х				х
Education							
ProQuest Dissertations & Theses	х	х	х	х	х	х	х
Global							
Science Direct	х	х	х	х	х	х	х
SportDiscus with full-text	Index	х	х	х	х	х	х
	only						
SportRxiv (Open Access	X	х	х	х	х	х	х
Repository for Sport, Exercise &							
Health Research)							
https://www.sportrxiv.org/							
Sports Medicine & Education				х	х		х
Index (formerly Physical							
Education Index)							
Web of Science	х	х	х	х	х	х	х
Wiley Online Library	х	х	х	х	х	х	х

Database Analysis: UCF has all but 3 of the databases listed. One of those, Access Physiotherapy is held by only USC. A second one is Health Source: Nursing Academic Edition which we have until January 2021. This will be dropped due to library budget cuts. UF, the University of South Carolina, and the University of Virginia have it while Florida State, Penn State and USC do not. UCF has enough other indexes to cover the subject matter. The other is Sports Medicine & Education Index. South Carolina, Virginia and USC have it. Florida, Florida State and Penn State do not. This was formerly titled The Physical Education Index and that is still largely its focus. Since Kinesiology largely uses PubMed, Medline, Science Direct, SportDiscus, and Web of Science, UCF does not necessarily need Sports Medicine & Education Index. While it would be nice to have SportDiscus with full text like the peer institutions, UCF does have access to the complete index citations and that is adequate to support the newly proposed Kinesiology PhD program.

Journals

Journal Title	UCF	UF	FSU	U So	UVA	Penn	USC
				Car		State	
ACSM's Health and Fitness	х	х	х		х	х	х
Journal							
Adapted Physical Activity	х	х	х	х	х	х	х
Quarterly							
Advances in Exercise and		х	х	х	х	Х	х
Sports Physiology (Japan)							

Journal Title	UCF	UF	FSU	U So Car	UVA	Penn State	USC
Available via SportDiscus				Car		State	
full-text only							
Advances in Physiology	х	х	х	х	х	х	х
Education							
American Journal of Clinical	х	х	х	х	х	х	х
Nutrition							
American Journal of Physical	х	х	х	х	х	х	х
Medicine and Rehabilitation							
American Journal of Physical	х	х	х	х	х		х
Medicine and Rehabilitation							
American Journal of Public	х	х	х	х	х	х	х
Health							
American Journal of Sports	х	х		х	х	х	х
Medicine							
Amino Acids	х	х	х	х	х	х	x
Annals of Physical and	х	х	х	х	х	х	x
Rehabilitation Medicine							
(Clinical Key, Science Direct)							
Applied Physiology,	х	х	х	х	х		х
Nutrition & Metabolism							
Archives of Physical	Х	х	х	х	х	х	х
Medicine and Rehabilitation							
(Clinical Key; on PT list to							
save)							
Biology of Sport (open	х	х	х	х	x	х	x
access)							
British Journal of Sports	Х	Х	х	х	х	х	х
Medicine							
Clinical Biomechanics	Х	Х	х	х	x	х	x
(Clinical Key, Science Direct)							
Clinical Journal of Sport	Х	х	х		х	Х	х
Medicine (LWW high impact,							
LWW Nursing)							
Clinical Kinesiology (Gale,	Х	Х	х	X	х	х	х
pub site)							
Clinical Orthopaedics and	X	X	x	X	x	X	x
Related Research (PIVIC 1 yr.							
Clinical Dhysiology 8						~	
Clinical Physiology &	X	X	X	X	X	x	X
Clinical Pohabilitation (SACE)	V	V	V	V	V	v	V
Clinical Reliabilitation (SAGE)	X	X	X	X	X	X	X
(Clinical Key, Science Direct)	X	X	x	X	X	x	X
Current Paviaws in	v	v	v	v	v	v	v
Musculoskeletal Medicine	^	^	^	^	^	^	^
(PMC free)							
Current Sports Medicine	x	x	x	x	x	x	x
Reports			^	<u>^</u>	^	^	^
European Journal of Applied	x	x	x	x	x	x	x
Physiology							

Journal Title	UCF	UF	FSU	U So Car	UVA	Penn State	USC
European Journal of Sport Science	x	х	х	х	х		х
Exercise & Sport Sciences Reviews	x	x	х	x	х	х	x
Exercise Immunology Review	x	x	х	x	x	x	x
Experimental Gerontology	х	х	х	х	х	х	х
Food and Nutrition Research (DOAJ)	x	x	x	x	x	x	x
Gait & Posture (Phy Ther saved)	x	x	x	x	x	x	x
Human Movement Science	х	х		х	х	х	х
International Journal of Athletic Training & Therapy (HK)	x	x	x	x	x		x
International Journal of Performance Analysis in Sport	x	x		x	x		x
International Journal of Sport Nutrition & Exercise Metabolism	x	x	x	x	x	x	x
International Journal of Sports Medicine	x	x	x	x	x	x	x
International Journal of Sports Physiology & Performance	x	x	х	x	x	х	x
International Journal of Sports Science & Coaching	х	х	х	х	х	х	х
JAMA: Journal of the American Medical Association	х	x	x	x	x	x	x
Journal of Aging and Physical Activity	х	х	х	х	x	х	x
Journal of Applied Biomechanics (HK)	x	x	х	x	x	х	x
Journal of Applied Physiology	x	x	х	x	х	x	х
Journal of Athletic Training (AT saved)	x	x	x	x	x	x	x
Journal of Dietary Supplements	x	x	x	x			x
Journal of Electromyography and Kinesiology	x	x	x	x	x	x	x
Journal of Exercise Science and Fitness	x	x	x	x	x	x	x
Journal of Motor Behavior (T&F)	x	x	х	x	х	x	х
Journal of Orthopaedic and Sports Physical Therapy (Pub site)	x	x	x	x	x	x	x

Journal Title	UCF	UF	FSU	U So	UVA	Penn	USC
				Car		State	
Journal of Science &	х	х	х	х	х	х	Х
Medicine in Sport							
Journal of Sport & Exercise	х	х	х	х	х	х	Х
Psychology (HK)							
Journal of Sport	х	х	х	х	х	х	Х
Rehabilitation (HK)							
Journal of Sports Medicine &	Print	х		Print			
Physical Fitness							
Journal of Sports Sciences	Х	Х	Х	х	Х	Х	Х
Journal of Strength &	х	х		х	х	Х	Х
Conditioning Research							
Knee Surgery, Sports	х	х	х	х	х	х	х
Traumatology, Arthroscopy							
Measurement in Physical	х	х	х	х	х	х	х
Education and Exercise							
Science							
Medicine & Science in Sports	х	х	х	х	х	х	х
& Exercise							
Motor Control	х	Х		х	Х	Х	Х
Muscle & Nerve	Х	Х	Х	х	Х	Х	Х
Pediatric Exercise Science	х	Х	х	х	Х	Х	Х
Perceptual & Motor Skills	х	х	х	х	х	Х	х
Psychology of Sport and	х	х	х	х	х	х	х
Exercise (SciDir)							
Research in Sports Medicine	х	х	х	х	х	х	х
Research Quarterly for	х	х		х	х	х	х
Exercise and Sport							
Scandinavian Journal of	х	х	х	х	х	х	х
Medicine & Science in Sports							
Science and Sports	х	х		х	х	х	х
Sports Biomechanics	х	х	х	х	х	х	х
Sports Health	х	х	х	X	Х	х	х
Sports Medicine	Open	Open	Open	Open	х	х	х
	only	only	only	only			

Journal Analysis: UCF lacks 2 of the above journal titles. UF lacks 1 of the above journal titles. FSU lacks 8 of the listed journal titles. The University of South Carolina lacks 3 journal titles. The University of Virginia lacks 2 of the journal titles. Penn State lacks 7 of the journal titles. USC lacks 1 of the listed journal titles.

UCF has all but 2 of the listed journals: Advances in Exercise and Sports Physiology and Sports Medicine. Advances in Exercise and Sports Physiology is published in Japan and is only available through SportDiscus with full text subscription which we do not have. That subscription would be over \$4,800 and we don't have that money available now. Individual articles from this journal, if needed, can be purchase for \$21.00 at this source http://mol.medicalonline.jp/en/archive/select?jo=dt4adexp. Only open items from the hybrid Sports Medicine are available at UCF, Florida, Florida State and the University of South Carolina. The University of Virginia, Penn State, and USC have full access to Sports Medicine. A Sports Medicine subscription costs \$2,519.00 annually if the program wishes to purchase the title. Should the demands for either of these titles warrant purchase, the department would be expected to supply the funds to it/them. Since UCF has almost all of the listed journals, we have the journal support needed for the newly proposed Kinesiology PhD.

Books > 2000

Subject Heading (LC/Medical)	UCF	UF	FSU	U So Car	UVA	Penn State	USC
Athletes Nutrition	112	71	53	83	42	69	46
Cardiovascular system	14	18	6	26	158	17	33
Physiology							
Chronic diseases Exercise	4	2	1	10	16	4	9
therapy							
Endurance training (See	11	8	4	0	12	5	5
also physical endurance)							
Exercise	538	439	359	338	424	684	448
Exercise Physiological	277	215	167	133	115	105	108
aspects (Used for Exercise							
physiology)							
Human locomotion (Used	47	49	61	37	40	32	28
for movement science)							
Human mechanics (Used	223	227	220	104	139	95	106
for movement science)							
Kinesiology	69	122	27	71	57	59	28
Kinesiology Research	4	1	1	12	2	1	1
Methodology							
Kinesiology Statistical	3	2	0	2	6	2	2
Methods					_		
Metabolism Regulation	17	20	10	16	9	17	18
Muscle strength (Used for	112	200	73	81	50	55	77
strength training)							
Physical endurance (See	15	8	4	0	7	19	0
also endurance training)							
Physical fitness	719	579	412	182	306	463	533
Physical fitness for people	5	4	3	1	10	4	2
with disabilities	-	10	-	-			
Resistance training (Use for	8	12	8	0	0	2	4
strength training)	100	50	22	25	12	07	2.42
Sports sciences (Used for	123	58	23	35	43	87	342
sport science)	101	07	47	70	20	54	
vveight training (Used for	101	87	47	/6	38	51	55
Total	2402	2121	1470	1207	1474	1771	1045
TOLAI	1.00	2121	14/9 62	1207 E0	L4/4	74	1045 77
	1.00	.ŏŏ	.02	.50	10.	./4	.//

Books: UCF has more books, in the subjects used, than any of the peer institutions. Florida has 88% of the total of UCF. Southern California has 77%. Penn State 74%. Florida State has 62%. Virginia 61%. South Carolina has 50%. Therefore, UCF certainly has the books needed to support the newly proposed PhD in Kinesiology.

EBook Platforms

Vendor	UCF	Florida	FSU	S Car	UVA	Penn State	USC
Access Medicine	х	х	х	х	х	х	х

Vendor	UCF	Florida	FSU	S Car	UVA	Penn State	USC
Books@Ovid		х	х		х		х
Cambridge Core	х	х	х	х	х	х	х
EBSCO e-Books	х	х	х	х	х	х	х
Gale Virtual Reference	х	х	х	х		х	
HathiTrust Digital Library	х	х	х	х	х	х	х
National Academies Press	х	х		х	х		х
NCBI Bookshelf https://www.ncbi.nlm.nih.gov/books	x	x	x	x	x	×	х
ProQuest ebook Central	х	х	х	х	х	х	х
R2 Digital Library	Dropped Med Sch	x	х		Med lib		x
SAGE Knowledge	х	х	х	х	х	х	х
Science Direct e-books (Elsevier)	х	х			х	x	
Freedom Collection							
Springer eBooks	х	х	х	х	х	x	x
Taylor and Francis eBooks	Indiv titles purchased as needed	x	x		x	x	x
Thieme MedOne Education (formerly Thieme ElectronicBook Library)	x	x	x				
Wiley Online Library	х	х	х	х	х	х	х

EBook Platforms: UCF has all but 2 of the platforms held by comparison institutions. Books@Ovid is held by Florida, Florida State, Virginia and Southern California. South Carolina and Penn State do not hold that platform. R2 Digital Library is basically books for the medical school and is paid for out of those funds. UCF did have the R2 Digital Library, but the Medical School cancelled the subscription due to budgetary cuts. The lack of either, or both, of these databases does not hinder resources for this newly proposed Kinesiology PhD. Note that all of the peer institutions, except Florida, lack 2 or more of the e-Book databases listed.

Reference Books

Reference Titles	UCF	Florida	FSU	S Car	UVA	Penn State	USC
ACL Handbook: Knee Biology, Mechanics, and Treatment, 2013 <u>UCF: Click</u> <u>here for ONLINE</u> ACCESS SpringerLink	x	x				x	x
ACSM's Guidelines for Exercise Testing and Prescription, Wolters Kluwers, 2018 RC684.E9 A44 2018	x	2014	2006	x	2014	x	x
Athletic and Sport Issues in Musculoskeletal Rehabilitation. Elsevier, 2011 <u>RC1210 .A82 2011</u>	x			x		x	x

Reference Titles	UCF	Florida	FSU	S Car	UVA	Penn State	USC
Clinical Kinesiology and Anatomy, FA Davis, 2017. <u>QP303 .L53 2017</u>	2017			2006	2006	x	x
CRC Desk Reference for Nutrition, 2006 <u>QP141 .B523 2006</u> Use in Library only	X	2011	2011	1998	1998	x	x
Encyclopedia of Exercise Medicine in Health and Disease, Springer, 2012 <u>UCF: Click here for ONLINE</u> <u>ACCESS</u> SpringerLink	x	2007	2005		2005	x	x
Encyclopedia of Exercise, Sport and Health, Allen & Irwin, 2004 <u>GV567 .B78 2004</u>	x			x	x		
Encyclopedia of Sports Medicine, SAGE, 2011 <u>UCF: Click here for ONLINE</u> <u>ACCESS</u> SAGE Knowledge	x		2005	x	2005	x	x
Encyclopedia of Sports Science, Macmillan, 1997, v 1&2 GV558 .E53 1997	x/x	x/x	x/x	x/x	x/x	x/x	x/x
Gale Encyclopedia of Fitness, 2017		х		x		2012	x
Gray's Anatomy, Elsevier, 2016 <u>UCF: Click here for ONLINE</u> <u>ACCESS</u> Provided by ClinicalKey	X	x	x	x	x	x	x
IOC Manual of Sports Injuries, Wiley, 2012 <u>UCF:</u> <u>Click here for ONLINE</u> <u>ACCESS</u> Wiley	x	x		x	x	x	x
Muscle Test Handbook: Functional Assessment, Myofascial Trigger Points and Meridian Relationships, Elsevier, 2013 <u>UCF: Click</u> <u>here for ONLINE</u> <u>ACCESS</u> Elsevier ScienceDirect	x	x					
Netter's Sports Medicine, Elsevier, 2018 <u>UCF: Click here for ONLINE</u> <u>ACCESS</u> Provided by ClinicalKey	x		x	x	x		x

Reference Titles	UCF	Florida	FSU	S Car	UVA	Penn State	USC
Nutritional Supplements in Sports and Exercise, 2015 <u>UCF: Click here for ONLINE</u> <u>ACCESS</u> SpringerLink	x	2008	2008	2008		x	x
Oxford Dictionary of Sports Science and Medicine, 1998 <u>RC1206 .094 1998</u>	x	x	2006	х	х	x	2006
A Primer for the Exercise and Nutrition Sciences: Thermodynamics, Bioenergetics, Metabolism, 2008 <u>UCF: Click here for</u> <u>ONLINE ACCESS</u> SpringerLink	x	x				x	x
Principles of Biomechanics and Motion Analysis, LWW, 2006 <u>QP303 .G75 2006</u>	x				х	x	
Research Methods for Sports Performance Analysis, Routledge, 2010 <u>GV558 .0375 2010</u>	x	x				x	x
Sports Science Handbook: the Essential Guide to Kinesiology, Sport and Exercise Science, Multi- Science, 2005 <u>GV558 .J46 2005</u>	x				x	x	x
Sports Injuries Guidebook, Human Kinetics, 2008 RD97 .S6888 2008	x						
Therapeutic Exercise Foundations and Techniques, FA Davis, 2018. RM725 .K57 2018	x	2012	2007	2012	2007	x	x

Reference books: As one can see from the above comparison, holdings vary considerably as do editions of reference works. UCF has all of the titles but Gale Encyclopedia of Fitness and that one is not critical for the Kinesiology PhD program. Therefore, UCF has the reference books it needs to support the Kinesiology PhD. The library will request \$600.00 annually for the next 5 years for the purchase of needed reference books. Should no reference books be needed for a given year, the money will be used to supplement the general collection for Kinesiology

B. Describe additional library resources that are needed to implement and/or sustain the program through Year 5. Include projected costs of additional library resources in Table 3 in Appendix A. Please include the signature of the Library Director in Appendix B.

Existing resources adequately support the School of Kinesiology and Physical Therapy and the Education Ph.D. Exercise Physiology track; however, \$600 per year has been budgeted to sustain the program through Year 5.

C. Describe classroom, teaching laboratory, research laboratory, office, and other types of space that are necessary and currently available to implement the proposed program through Year 5.

The necessary classroom, teaching laboratory, research laboratory, office, and other types of space are currently available in the School of Kinesiology of Physical Therapy. The curriculum delivery for the existing Education Ph.D. Exercise Physiology track takes place in several classrooms and laboratories across the UCF campus. Faculty associated with the proposed Kinesiology Ph.D. program currently have adequate office and research laboratory/student office space.

The Division of Kinesiology takes part in the annual classroom allocation process along with other programs from the UCF College of Health Professions and Sciences. As such, the Kinesiology Ph.D. program will have access to any of the classrooms on the Orlando campus when requested and confirmed through the appropriate channels. Through this allocation process, two classrooms have been consistently made available to the Division of Kinesiology and utilized for the graduate programs:

- Room: CB1 105 with a capacity of 76 seats
- Room: TA 322 with a capacity of 53 seats

Numerous classrooms of varying capacities located in the Health Sciences 1 (HS1) building have also been used to schedule Kinesiology courses. From a research laboratory perspective, the following are some of the facilities associated with the School of Kinesiology and Physical Therapy and will be used to support the Kinesiology Ph.D. program:

- Kinesiology Teaching Laboratory (Room: ED 175; 1773 sq ft)
 - 40-seat capacity
 - Additional 940 sq ft of auxiliary space (Room: ED 172/ED 172B)
 - Wellness Research Center/Faculty and Staff Gym (Room: ED 179A/B/C; 3256 sq ft)
- Combined Athletic Training/Kinesiology research/teaching space (Room: ED 174; 2768 sq ft)
 - Exercise Physiology Intervention and Collaboration (EPIC) Laboratory
 - Physiology of Work and Exercise Response (POWER) Laboratory
 - o Rehabilitation, Athletic Assessment, and Dynamic Imaging (READY) Laboratory
- Combined Physical Therapy research/teaching space (Room: ED 174A/ED 172C; 1736 sq ft)
 - Musculoskeletal Research Laboratory
 - Neuromuscular Plasticity Laboratory
 - Cellular Exercise Physiology Lab (Room: BIO 224; 400 sq ft)
 - DPT Anatomy Laboratory (Room: HS1 265; 1800 sq ft)

Workspaces for doctoral students are located throughout these facilities and are dependent upon the assigned faculty mentor and research interests. Examples of specific instrumentation currently housed within the Division of Kinesiology are included in Appendix H.

D. Describe additional classroom, teaching laboratory, research laboratory, office, and other space needed to implement and/or maintain the proposed program through Year
 5. Include any projected Instruction and Research (I&R) costs of additional space in Table 3 in Appendix A. Do not include costs for new construction because that information should be provided in response to X (E) below.

Existing resources adequately support the School of Kinesiology and Physical Therapy and the Education Ph.D. Exercise Physiology track. Therefore, no additional resources are needed to implement or sustain the program through Year 5.

E. If a new capital expenditure for instructional or research space is required, indicate where this item appears on the university's fixed capital outlay priority list. Table 3 in Appendix A includes only Instruction and Research (I&R) costs. If non-I&R costs, such as indirect costs affecting libraries and student services, are expected to increase as a result of the program, describe and estimate those expenses in narrative form below. It is expected that high enrollment programs in particular would necessitate increased costs in non-I&R activities.

No new capital expenditure is required for the proposed degree program.

F. Describe specialized equipment that is currently available to implement the proposed program through Year 5. Focus primarily on instructional and research requirements.

The following SKPT laboratory spaces illustrate the diverse research interests, associated resources, and potential for multidisciplinary collaboration for students in the proposed Kinesiology Ph.D. program:

- Athletic Training Laboratory
- Cellular Exercise Physiology Laboratory
- Exercise Physiology Intervention and Collaboration (EPIC) Laboratory
- Kinesiology Teaching Laboratory
- Innovative Mobility Initiative (IMOVE) Laboratory
- Musculoskeletal Assessment Laboratory
- Neuromuscular Plasticity Laboratory
- Physiology of Work and Exercise Response (POWER) Laboratory

A list of specific instrumentation currently housed within the Division of Kinesiology is included in **Appendix H**.

G. Describe additional specialized equipment that will be needed to implement and/or sustain the proposed program through Year 5. Include projected costs of additional equipment in Table 3 in Appendix A.

Existing resources adequately support the School of Kinesiology and Physical Therapy and the Education Ph.D. Exercise Physiology track. Therefore, no additional resources are needed to implement or sustain the program through Year 5.

H. Describe any additional special categories of resources needed to implement the program through Year 5 (access to proprietary research facilities, specialized services, extended travel, etc.). Include projected costs of special resources in Table 3 in Appendix A.

No additional special resources are required to implement the program.

I. Describe fellowships, scholarships, and graduate assistantships to be allocated to the proposed program through Year 5. Include the projected costs in Table 3 in Appendix

The projected E&G costs in Year 1 for graduate assistantships (16 doctoral students × \$18,870 each = \$301,920) in the Kinesiology Ph. D. program represent an extension of the existing costs of the Education Ph.D. - Exercise Physiology track. The assistantship support is provided through graduate teaching associate and/or assistant assignments within the Kinesiology B.S. program, which has historically funded 10-15 graduate students. The increase to 20 funded assistantships will be supported by external funding through Year 5, leading to a total of \$377,400 that is budgeted Year 5). A conservative estimate of \$132,090 of C&G funds will support graduate assistantships and be used to offset the E&G costs in Year 5.

J. Describe currently available sites for internship and practicum experiences, if appropriate to the program. Describe plans to seek additional sites in Years 1 through 5.

The proposed program does not require internships or practicum experiences.

APPENDIX A

Table 1-B: Graduate Enrollment and Headcount Table 2: Faculty Participation Table 3: Budget Table 4: Reallocation

APPENDIX A TABLE 1-B **PROJECTED HEADCOUNT FROM POTENTIAL SOURCES** (Graduate Degree Program)

Source of Students (Non-duplicated headcount in any given year)*	Year 1 HC	Year 1 FTE	Year 2 HC	Year 2 FTE	Year 3 HC	Year 3 FTE	Year 4 HC	Year 4 FTE	Year 5 HC	Year 5 FTE
Individuals drawn from agencies/industries in your service area (e.g., older returning students)	0	0	0	0	1	1	2	2	3	2.63
Students who transfer from other graduate programs within the university**	10	8.88	7	4.38	0	0	0	0	0	0
Individuals who have recently graduated from preceding degree programs at this university	1	1	3	3	5	4.63	5	4.63	6	5.25
Individuals who graduated from preceding degree programs at other Florida public universities	2	2	3	3	5	4.25	5	4.25	5	4.25
Individuals who graduated from preceding degree programs at non-public Florida institutions	0	0	0	0	1	1	1	1	1	0.63
Additional in-state residents***	0	0	0	0	0	0	0	0	0	0
Additional out-of-state residents***	3	3	3	3	5	3.88	5	5	5	4.25
Additional foreign residents***	0	0	0	0	0	0	0	0	0	0
Other (Explain)***	0	0	0	0	0	0	0	0	0	0
Totals	16	14.88	16	13.38	17	14.76	18	16.88	20	17.00

* List projected annual headcount of students enrolled in the degree program. List projected yearly cumulative ENROLLMENTS instead of admissions.
 ** If numbers appear in this category, they should go DOWN in later years.
 *** Do not include individuals counted in any PRIOR category in a given COLUMN.

APPENDIX A Table 2 Anticipated Faculty Participation

Faculty Code	Faculty Name or "New Hire" Highest Degree Held Academic Discipline or Specialty	Rank	Contract Status	Initial Date for Participation in Program	Mos. Contract Year 1	FTE Year 1	% Effort for Prg. Year 1	PY Year 1	Mos. Contract Year 5	FTE Year 5	% Effort for Prg. Year 5	PY Year 5
A	David Fukuda, Ph.D. Kinesiology	Assoc. Prof.	Tenure	Fall 2022	9	0.75	0.30	0.23	9	0.75	0.30	0.23
A	Ethan Hill, Ph.D. Kinesiology	Asst. Prof.	Tenure	Fall 2022	9	0.75	0.20	0.15	9	0.75	0.20	0.15
A	Jeffrey Stout, Ph.D. Kinesiology	Professor Director	Tenure	Fall 2022	12	1.00	0.15	0.15	12	1.00	0.15	0.15
A	Adam Wells, Ph.D. Kinesiology	Asst. Prof.	Tenure	Fall 2022	9	0.75	0.20	0.15	9	0.75	0.20	0.15
В	New Faculty Hire, Ph.D. Physical Therapy	Asst. Prof.	Tenure	Fall 2022	9	0.75	0.00	0.00	9	0.75	0.10	0.08
A	William Hanney, DPT, Ph.D. Physical Therapy	Assoc. Prof.	Tenure	Fall 2022	9	0.75	0.00	0.00	9	0.75	0.10	0.08
A	Matt Stock, Ph.D. Physical Therapy	Assoc. Prof.	Tenure	Fall 2022	9	0.75	0.10	0.08	9	0.75	0.10	0.08
A	Colby Mangum, ATC, Ph.D. Athletic Training	Asst. Prof.	Tenure	Fall 2022	9	0.75	0.10	0.08	9	0.75	0.10	0.08
A	Michelle Gregiore Gill, Ph.D. Curriculum and Instruction	Professor	Tenure	Fall 2022	9	0.75	0.02	0.02	9	0.75	0.02	0.02
A	Debbie Hahs-Vaughn, Ph.D. Analysis	Professor	Tenure	Fall 2022	9	0.75	0.02	0.02	9	0.75	0.02	0.02
A	Steven Sivo, Ph.D. Analysis	Professor	Tenure	Fall 2022	9	0.75	0.02	0.02	9	0.75	0.02	0.02
	Total Person-Years (PY)							0.87				1.03

Faculty			PY V	Vorkload by Budget	Classification	1
Code	Code Description	Source of Funding	Year 1		Yea	ar 5
A	Existing faculty on a regular line	Current Education & General Revenue	0.87			0.95
В	New faculty to be hired on a vacant line	Current Education & General Revenue	0.00			0.08
С	New faculty to be hired on a new line	New Education & General Revenue	0.00			0.00
D	Existing faculty hired on contracts/grants	Contracts/Grants	0.00			0.00
E	New faculty to be hired on contracts/grants	Contracts/Grants	0.00			0.00
F	Existing faculty on endowed lines	Philanthropy & Endowments	0.00			0.00
G	New faculty on endowed lines	Philanthropy & Endowments	0.00			0.00
н	Existing or New Faculty teaching outside of regular/tenure-track line course load	Enterprise Auxiliary Funds	0.00			0.00
		Overall Totals for	0.87			1.03

APPENDIX A TABLE 3 PROJECTED COSTS AND FUNDING SOURCES

Budget Line Item	Reallocated Base* (E&G) Year 1	Enrollment Growth (E&G) Year 1	New Recurring (E&G) Year 1	New Non- Recurring (E&G) Year 1	Contracts & Grants (C&G) Year 1	Philanthropy/ Endowments Year 1	Enterprise Auxiliary Funds Year 1	Subtotal Year 1	Continuing Base** (E&G) Year 5	New Enrollment Growth (E&G) Year 5	Other*** (E&G) Year 5	Contracts & Grants (C&G) Year 5	Philanthropy/ Endowments Year 5	Enterprise Auxiliary Funds Year 5	Subtotal Year 5
Faculty Salaries and Benefits	142,325	0	0	0	0	0	0	\$142,325	182,298	0	0	0	0	0	\$182,298
A & P Salaries and Benefits	0	0	0	0	0	0	0	\$0	0	0	0	0	0	0	\$0
USPS Salaries and Benefits	0	0	0	0	0	0	0	\$0	0	0	0	0	0	0	\$0
Other Personal Services	0	0	0	0	0	0	0	\$0	0	0	0	0	0	0	\$0
Assistantships & Fellowships	301,920	0	0	0	0	0	0	\$301,920	245,310	0	0	132,090	0	0	\$377,400
Library	600	0	0	0	0	0	0	\$600	600	0	0	0	0	0	\$600
Expenses	5,000	0	0	0	0	0	0	\$5,000	5,000	0	0	0	0	0	\$5,000
Operating Capital Outlay	0	0	0	0	0	0	0	\$0	0	0	0	0	0	0	\$0
Special Categories	0	0	0	0	0	0	0	\$0	0	0	0	0	0	0	\$0
Total Costs	\$449,845	\$0	\$0	\$0	\$0	\$0	\$0	\$449,845	\$433,208	\$0	\$0	\$132,090	\$0	\$0	\$565,298

*Identify reallocation sources in Table 3.

**Includes recurring E&G funded costs ("reallocated base," "enrollment growth," and "new recurring") from Years 1-4 that continue into Year 5.

***Identify if non-recurring.

Faculty and Staff Summary

Total Positions	Year 1	Year 5
Faculty (person-years)	0.87	1.03
A & P (FTE)	0	0
USPS (FTE)	0	0

Calculated Cost per Student FTE

	Year 1	Year 5
Total E&G Funding	\$449,845	\$433,208
Annual Student FTE	14.88	17.00
E&G Cost per FTE	\$30,242	\$25,483

APPENDIX A TABLE 3 PROJECTED COSTS AND FUNDING SOURCES

Table 2 Column Ex	olanations	
Reallocated Base* (E&G)	1	E&G funds that are already available in the university's budget and will be reallocated to support the new program. Please include these funds in the Table 3 – Anticipated reallocation of E&G funds and indicate their source.
Enrollment Growth (E&G)	2	Additional E&G funds allocated from the tuition and fees trust fund contingent on enrollment increases.
New Recurring (E&G)	3	Recurring funds appropriated by the Legislature to support implementation of the program.
New Non-Recurring (E&G)	4	Non-recurring funds appropriated by the Legislature to support implementation of the program. Please provide an explanation of the source of these funds in the budget section (section III. A.) of the proposal. These funds can include initial investments, such as infrastructure.
Contracts & Grants (C&G)	5	Contracts and grants funding available for the program.
Philanthropy Endowments	6	Funds provided through the foundation or other Direct Support Organizations (DSO) to support the program.
Enterprise Auxiliary Funds	7	Use this column for continuing education or market rate programs and provide a rationale in section III.B. in support of the selected tuition model.
Continuing Base** (E&G)	9	Includes the sum of columns 1, 2, and 3 over time.
New Enrollment Growth (E&G)	10	See explanation provided for column 2.
Other*** (E&G)	11	These are specific funds provided by the Legislature to support implementation of the program.
Contracts & Grants (C&G)	12	See explanation provided for column 5.
Philanthropy Endowments	13	See explanation provided for column 6.
Enterprise Auxiliary Funds	14	Use this column for continuing education or market rate programs and provide a rationale in section III.B. in support of the selected tuition model.

APPENDIX A TABLE 4 ANTICIPATED REALLOCATION OF EDUCATION GENERAL FUNDS*

Program and/or E&G account from which current funds will be reallocated during Year 1	Base before reallocation	Amount to be reallocated	Base after reallocation
Kinesiology (18822074)	\$ 792,239	\$ 75,346	\$ 716,893
Kinesiology (18820074)	\$ 358,832	\$ 307,520	\$ 51,312
School of Kinesiology and Physical Therapy (18802001)	\$ 380,402	\$ 36,299	\$ 344,103
Physical Therapy (18812074)	\$ 790,999	\$ 12,473	\$ 778,526
Athletic Training (18862074)	\$ 285,683	\$ 8,926	\$ 276,757
Dept. of Learning Sciences and Educational Research	\$ 1,945,400	\$ 9,281	\$ 1,936,119
	\$-	\$ -	\$-
Totals	\$ 4,553,555	\$ 449,845	\$ 4,103,710

* If not reallocating E&G funds, please submit a zeroed Table 4

APPENDIX B

Please include the signature of the Equal Opportunity Officer and the Library Director.

na816340	Digitally signed by na816340 Date: 2020.11.12 18:16:35
114010010	-05'00'

Signature of Equal Opportunity Officer					
Frank Allen	Digitally signed by Frank Allen Date: 2020.11.16 12:11:43 -05'00'				

Date

Signature of Library Director

Date

This appendix was created to facilitate the collection of signatures in support of the proposal. Signatures in this section illustrate that the Equal Opportunity Officer has reviewed section II.E of the proposal and the Library Director has reviewed sections X.A and X.B.

APPENDIX C – DATA SUPPORTING NEED FOR ADDITIONAL PROGRAM

This is the only doctoral program under CIP 31.0505

APPENDIX D – EXTERNAL CONSULTANT REPORTS

Spring 2020 Academic Program Review Consultant Evaluation Report



UNIVERSITY OF CENTRAL FLORIDA Academic Program Review 2019-20 Consultant Graduate Program Review

Program: Education (Ph.D.) - Exercise Physiology

Reviewer(s) Name(s): Dr. Lori Ploutz-Snyder, Dr. Melinda Solmon

Report Author(s): Click or tap here to enter text.

Instructions: Please offer your assessment of each item below, considering when appropriate, your knowledge of other public research institutions. While a few items solicit an open-ended response, most ask you to rate a particular characteristic of the program under review as exemplary, appropriate, or needing improvement. At the end of each section, please elaborate on any items in that section identified as exemplary or needing improvement. Additional comments are optional. You may offer recommendations for improvement on the topics covered in each section at the end of the respective section and/or you may provide all recommendations for program improvement in item 9.3 at the end of this document.

	Consultant Evaluation						
Please evaluate the following: In addition to the program self-study, you may wish to consult the Student Learning Outcomes Assessments in the UCF APR Google Drive.)	Exemplary	Appropriate	Needs Improvement		Do Not Know	Not Applicable	
1.1 Program goals and objectives, including those related to planned student learning outcomes		\boxtimes					

Section 1 - Program Goals and Planned Student Learning Outcomes (SLOs)

Please elaborate if you identified item 1.1 as exemplary or needing improvement. Other comments are optional.

The learning outcomes are appropriate but there are no data as this is the first year for collecting information on any of the outcomes.

Recommendations, if any, in the area of program goals and planned student learning outcomes:

Be sure there is a system in place to collect and maintain the student learning outcome data.

	Consultant Evaluation					
Please evaluate the following:	Exemplary	Appropriate	Needs Improvement		Do Not Know	Not Applicable
2.1 Program administrative and management structures to effectively run program (e.g., effectiveness of program coordination, process for monitoring students' progress to degree, program handbooks, process for selecting preceptors/thesis advisors/research mentors/clinical supervisors)			\boxtimes			
2.2 Student access to resources to support student success (e.g., advising, faculty members, appropriate technology)	\boxtimes					
2.3 Evaluate the composition of the current program advisory board (if applicable) to be able to benefit student preparation to meet industry needs						\boxtimes

Section 2 - Program Coordination, Administration, and Student Support

Please elaborate if you identified any items in this section (2.1-2.3) as exemplary or needing improvement. Other comments are optional.

2.1 Some of the process is excellent, particularly the student advising, research mentoring, and overall student success. Improvements are needed in other areas. The handbook is long and complicated. The comprehensive exam should be re-evaluated with respect to a) whether it is best serving its intended purpose and b) process standardization. in at least two regards. First, is the purpose and format of the exam. Current exam structure (full day of written exam style response to committee questions) Need to standardize comprehensive exam process so that it is the same for each student regardless of advisor and committee composition. For example, some students get the questions in advance, others do not.

2.2 Students consistently report the faculty are extremely supportive, accessible and collaborative across the department and outside of the department (with PT for example). The new lab equipment is well above appropriate.

Recommendations, if any, in the area of program coordination and administration:

2.1 Consider the comprehensive exam process overall to ensure it aligns with the student learning outcomes/progress to outcomes. The current exam structure of a full day of written answers to questions posed by committee members is a bit outdated and not clearly aligned

(or at least not well articulated in alignment) with learning outcomes. At a minimum, processes should be put in place to ensure the submitted questions are fair and in alignment with learning objectives. Secondly, the process of both question selection and details of exam administration should be made consistent across students. For example, as verified by both students and faculty, some students receive their questions in advance to prepare for and others do not. This leaves the program open to vulnerabilities in the event of a student or faculty complaint. Alternatively, faculty should consider whether another comprehensive exam structure would be in the students' best interest and better prepare them for the dissertation. One example may be to use the comprehensive exam to develop the student's ability to identify a line of research (literature review, articulation of set of steps to answer question, etc). This would make the exam more focused on the dissertation proposal with the expectation that the dissertation itself be a series of 3-4 manuscripts for suitable for publication.

	Consultant Evaluation					
Please evaluate the following:	Exemplary	Appropriate	Needs Improvement		Do Not Know	Not Applicable
3.1 Quality of faculty member instruction		\boxtimes				
3.2 Faculty member involvement of graduate students in research or other creative activity	\boxtimes					
3.3 Minimum faculty member qualifications required for teaching in the discipline(s)						
Please refer to the unit's local policy document labeled Faculty Teaching Qualifications – Statement of Good Practices in Discipline, located in the Faculty Information folder in the UCF APR Google Drive.						
3.4 If applicable, competence (considering scholarship and qualifications) among the graduate faculty members to provide instruction, advising, mentoring, research guidance and opportunities to graduate students						
3.5 Numbers and proportionate mix of full-time and part-time faculty members to support program needs and goals			\boxtimes			
3.6 Faculty gender diversity			\boxtimes			
3.7 Faculty ethnic diversity			\boxtimes			
3.8 Other faculty diversity (please describe below)			\boxtimes			

Section 3 – Contributing Faculty and Graduate Assistantships

	Consultant Evaluation					
Please evaluate the following:	Exemplary	Appropriate	Needs Improvement		Do Not Know	Not Applicable
3.9 Number and amount of GTA and/or GRA assistantships compared to those found in programs of similar size at other public research universities		\boxtimes				

Please elaborate if you identified any items in this section (3.1-3.9) as exemplary or needing improvement. Other comments are optional.

3.2 Faculty are highly involved with students in all aspects of the research. Faculty facilitate PhD students' opportunities to mentor junior students and collaborate amongst themselves. 3.5 There are only 4 graduate faculty and 2 of them have considerable administrative responsibility. Considering the PhD program alone and the collaborators in PT this is a sufficient faculty size for the ~10 PhD students. However, taken in the context of the other department programming (undergraduate, masters, etc), the split in faculty time creates challenge. The 4 faculty are doing outstanding work and it is amazing that they can accomplish so much.

3.6-8 Faculty diversity requires improvement in all regards. Most notably there are no women which is surprising given that Kinesiology is among the most gender balanced of the sciences. This may be related to prior department climate conditions that seem to now be resolved. The ethnic diversity is also lacking. Furthermore, the department could benefit from additional "thought diversity". The history of the group has been focused on strength and conditioning. This is a strength of the program and should not be diminished. But it's a good time to further expand the diversity of research.

3.9 While the number of GTA's seems appropriate now, the department does not offer many/any lab courses in areas where many other programs offer distinct labs (exercise physiology, biomechanics, motor control). If lab courses are added, more GTA's will be needed.

Recommendations, if any, in the area of contributing faculty:

3.5 Add 4 more research active tenure track faculty to support a PhD program in the context of the other degree programs and increased research emphasis. Aggressively pursue existing central university support for TT faculty hiring (cluster hire, inclusive excellence program). **The department should be very strategic about the breadth/depth of the faculty supporting the PhD program.** They need more diversity in all regards including diversity of thought/research area. The department is uniquely positioned to take the PhD program in several interesting directions and should be very thoughtful about the plan. Some examples include a) continue the focus on applied exercise science and expand beyond muscle physiology – cardiovascular and metabolic aspects of exercise are obvious gaps but there are many others. b) emphasize biomechanics of both sport and rehab and in close partnership with PT, AT and athletics. c) take a rehabilitation science approach with a neuromuscular approach to combine strength and conditioning with orthopedic rehab in unique ways. These are merely examples – but this planning should be approached very strategically with respect to alignment with

university priorities, carving a unique niche within Florida and the region to be the best program in a defined area that does not compete with other universities, builds on existing faculty strengths, leverages the relocation to CHPS, can thrive with existing or at least reasonable space/lab availability, etc.

	Consultant Evaluation					
Please evaluate the following:		Appropriate	Needs Improvement		Do Not Know	Not Applicable
4.1 Program's ability to meet student demand for the major		\boxtimes				
4.2 Enrollment levels relative to faculty size and composition		\boxtimes				
4.3 Program's ability and responsiveness to meet the needs of other disciplines (e.g., program offerings that support other programs)					\boxtimes	
4.4 Program's ability and responsiveness to meet local, regional, and national talent needs		\boxtimes				
4.5 Student time-to-degree in the program	\boxtimes					

Section 4 - Program Demand and Productivity

Please elaborate if you identified any items in this section (4.1-4.5) as exemplary or needing improvement. Other comments are optional.

4.3 I don't know the extent to which graduate students outside the department take Kinesiology courses. There are natural synergies and I suspect there are Kinesiology courses that would be of interest to others. I doubt the program has the bandwidth to support that now but it should be discussed internally.

Recommendations, if any, in the area of program demand and productivity:

4.4 Evaluate the job market and emerging market for PhD trained applied sport professionals.
Professional teams and some collegiate athletic programs are increasingly interested in leveraging science to enhance performance and prevent injury.

4.5 As far as I know all of the students to date have completed on time.

Section 5 - Program Quality

	Consultant Evaluation					
Please evaluate the following:	Exemplary	Appropriate	Needs Improvement		Do Not Know	Not Applicable
5.1 Criteria for program admission					\boxtimes	
5.2 Quality and rigor of student learning outcome targets						
Refer to the Assessment Plans and Results						
folder located in the APR Google Drive.						
5.3 Evidence of student learning consistent with stated program goals (including planned student learning outcomes) and discipline standards						
5.4 Student licensure pass rates (if applicable)						\boxtimes
5.5 Placement rates for graduates relative to disciplinary trends at other public research universities						
5.6 Quality and rigor of any affiliated combination programs (if applicable, see self- study addendum); e.g., accelerated baccalaureate-to-master's degrees, combination dual degrees, graduate degrees with external departments						

Student Perceptions of their Overall Experience

Based upon your interactions with students in the program, please indicate how you believe students in the program view the program in the following areas:

	Consultant Evaluation					
Please evaluate the following:		Appropriate	Needs Improvement		Do Not Know	Not Applicable
5.7 Students' perception of the overall		\boxtimes				
administration of the program						
5.8 Students' perception of advising and	\boxtimes					
mentoring						
5.9 Students' perception of program quality		\boxtimes				
and rigor						
5.10 Students' perceptions of the academic and						
collegial atmosphere of the program						

Please elaborate if you identified any items in this section (5.1- 5.10) as exemplary or needing improvement. Other comments are optional.

5.3 Data not yet collected on learning outcomes.

5.8 Students extremely complimentary of faculty efforts especially in spite of the time constraints/understaffing.

Recommendations, if any, in the area of program quality:

	Consultant Evaluation					
Please evaluate the following:	Exemplary	Appropriate	Needs Improvement		Do Not Know	Not Applicable
6.1 Program's ability to attract high quality students	\boxtimes					
6.2 Incoming students' credentials		\boxtimes				
6.3 Student gender diversity		\boxtimes				
6.4 Student racial/ethnic diversity		\boxtimes				
6.5 Other student diversity		\boxtimes				
6.6 Quality of student accomplishments compared to similar programs at other public research universities (e.g., theses, dissertations, creative works, papers presented; awards won; quality of subsequent graduate and professional programs entered; employment) Refer to the <i>Student Works</i> folder located in the APR Google Drive as well as any additional student works you may have reviewed during your site visit.						
6.7 Program relationship with alumni			\boxtimes		\boxtimes	

Section 6 - Student Characteristics and Quality

Please elaborate if you identified any items in this section (6.1-6.7) as exemplary or needing improvement. Other comments are optional.

6.1 Acceptance rate has been going steadily down (29% in 2012 to 8% now); GRE scores have remained constant and GPA has improved (3.5 to 3.7) suggesting both an increase in number of applicants a higher quality matriculant.

6.7 It does not appear that there is any alumni engagement, but I'm not certain about that.

Recommendations, if any, in the area of student characteristics and quality:

6.7 Increase efforts, or at least visibility, of alumni engagement. This would likely be at the college level.

Section 7 - Curriculum, Course Offerings, and Student Engagement Opportunities

	Consultant Evaluation					
Please evaluate the following: In addition to the program self-study, you may wish to refer to the Program Curriculum and Handbook(s) folder on the APR Google Drive.		Appropriate	Needs Improvement		Do Not Know	Not Applicable
7.1 Current curriculum's alignment with program goals		\boxtimes				
7.2 Design of core courses to provide students a solid foundation in the discipline			\boxtimes			
7.3 Availability and timeliness of required courses		\square				
7.4 Adequacy of student professional development opportunities (e.g., research, clinical experience, student teaching)		\boxtimes				
7.5 Balance between coursework and research, practica, independent study, etc., (e.g., too many or too few courses)		\boxtimes	\boxtimes			
7.6 Overall quality and rigor of current curriculum		\square				
7.7 Degree to which the program's course/activity/experiences sequence is appropriate to achieve the program's outcomes and student learning objectives			\boxtimes			

Please elaborate if you identified any items in this section (7.1-7.7) as exemplary or needing improvement. Other comments are optional.

7.2 and 7.7 Students are not happy with the core education statistics courses that are required. The data sets and examples are education data and hard to relate to life sciences. The qualitative data handing course are not relevant to most, if not all, Kinesiology students.7.5 The balance is barely ok. The PhD is 75 credits beyond the masters degree and this more than most programs. Faculty are already planning to reduce the number of credits in a new program.

Please use the space below to provide recommendations, if any, in the area of curriculum, course offerings, and student engagement opportunities. Please offer any specific suggestions to further enhance the curriculum (e.g., internationalize curriculum, add interdisciplinary components, expand high impact practices)

7.2 and 7.7 Move the PhD program (propose new program) within CHPS with a curriculum in alignment with the priorities of Kinesiology. There could be tracks within then new program (such as preparation for academe and industry or various research areas).

7.5 Consider the total number of courses and whether the balance between courses and research is the balance the faculty desire. There is considerable variability among other PhD programs with some requiring very little formal coursework and a lot of research and others being dominated by coursework.

Section 8 - Comparative Advantage

8.1 If applicable, please identify features that distinguish the program from similar programs at other institutions (e.g., curriculum, faculty member expertise, student engagement opportunities)

Small, cohesive faculty with research expertise centered around neuromuscular physiology, strength and conditioning. The program is smaller and more focused than most. A small program within a big university does offer some advantages and access to more resources.

8.2 Does the program fit a disciplinary niche? If so, please elaborate.

Yes, scientific basis of strength and conditioning with a focus on the neuromuscular system.

8.3 Please discuss the program's potential for achieving discipline (re-)accreditation or (re-)certification, if available.

NA

8.4 If appropriate, please identify one or more programs in the field that provide(s) an exemplar curricular model and/or student outcomes that the program would benefit from reviewing.

Exercise Science at Marquette University, Milwaukee WI ; exercise physiology and PT in the same unit with NSCA recognition. I'd consider this an exemplar.

PhD in Sport Physiology and Sport Performance, East Tennessee State University, Johnson City TN; integrates coaching and takes a unique approach. The curriculum is odd but it's worth looking at if you haven't already. It would be hard to attract federal research funding for this work so I don't recommend it as an exemplar, but it may provide ideas for a degree path to prepare students to work outside of academe which seems attractive to UCF.

Department of Exercise and Nutrition Sciences in School of Public Health and Health Professions, SUNY, University at Buffalo, Buffalo NY; Exercise and Nutrition sciences together with a PT pathway.

Department of Physical Therapy and Kinesiology, U Mass Lowell, Lowell MA; Exercise Science and PT together with undergraduate tracks in clinical applications and "exercise and fitness management" in collaboration with the business school to blend exercise and business management skills.

Section 9 - Analysis and Recommendations

- 9.1 Please identify up to five areas of greatest program strength.
 - 1. Faculty collegiality, research productivity (publications), dedication to enhancing the student experience and ability to thrive during turbulent times.
 - 2. Student research and placements post-graduation
 - 3. Funding for the PhD students are on GTA
- 9.2 Please identify up to five areas of greatest concern for the program (e.g., program weaknesses, barriers, threats, unique vulnerabilities).
 - Sustainability of the PhD program The department is in CHPS but the PhD program remains in Education. The core courses are not appropriate and over time the "fit" will become worse. It seems difficult to start new PhD programs but it is necessary. Without a PhD program the research productivity will not be able to grow and impact of moving to CHPS will not be fully realized.
 - 2. Small faculty size especially in the context of the other degree programs competing for the faculty time.
 - 3. Lack of diversity in the faculty.
 - 4. Continued growth of the university and risk of faculty burnout. They can not sustain additional growth with current resources.

9.3 Please reflect on: program centrality; cost and financial health; comparative advantage and distinctiveness; market need and student demand; and overall quality. Keeping these factors in mind, please offer your recommendations for program improvement considering each of the following, as appropriate:

- improvements necessary for successful continuation of program operation (if applicable)
- improvements that are not resource intensive, but that are likely to enhance program quality
- improvements that, if resources permit, could help take the program to the next level of prominence (including program rankings) and/or help enhance performance key metrics identified in the university's collective impact strategic plan (https://apq.ucf.edu/files/StrategicPlanning-Info-Item.pdf)

As previously mentioned, it is necessary to eventually move the PhD program out of education and into CHPS. The current education based program is ok but the core curriculum is not well suited to Kinesiology student needs. The current program can continue "as is" while awaiting its repositioning.

Low resource intensive program enhancements including evaluation of the comprehensive exam content/goals/alignment with learning objectives and processes for equity among students. Additional thought about GTA assignments and teaching PhD students to teach through a more controlled mentorship program is something to consider. One example of this is where GTAs begin first semester with helping to teach a course and then over time, advance to independent teaching. This can help the mentoring of GTAs as well as standardize the curriculum a bit (so each section of a course is taught the same material).

As resources are available, increasing the size of the tenure track faculty is critical. The program should aggressively pursue all funding opportunities to support new faculty, especially those that can help with the diversity of the faculty. As described above a very strategic approach should be taken to select the research emphases of the new hires. There is great potential to take the program in new/expanded directions.

Section 10 - Executive Summary

In one to two pages, please provide your overall impression of the program, emphasizing key aspects of the review. As appropriate, contextualize your assessment in relation to best practices in the discipline of study, graduate education, the broader higher education landscape, and/or industry trends within the field.

This is a small high quality PhD program situated in a very large university infrastructure. The reorganization in CHPS provides a tremendous opportunity for the program to advance in all regards. Including Kinesiology within a Health Sciences priority is a good strategy that has proven useful for other programs across the country. The benefits should flow both ways – raising awareness, resources and research opportunities for Kinesiology while infusing new Kinesiology perspectives into more traditional Health Sciences.

The faculty are doing excellent research mentoring for the PhD students and most students report having 5-10 total peer-reviewed publications upon graduation which is excellent. The comprehensive exam and rather traditional style dissertation model has perhaps become a bit stale and the faculty are encouraged to consider some of the newer models that may encourage students to think early about a line of research and complete several studies that are ready for publication from the dissertation itself. This is not meant as a criticism of the current model that is working but rather a suggested improvement.

This is special and critical time for the PhD program and the department as whole to think very strategically about how to grow the faculty which will in turn drive the research program, the direction of the PhD program and even some of the other degree programs. I came to understand some of the special challenges that UCF faces in the proposal of new degree programs. The department and college leadership needs to be in very close communication with university leaders who clearly understand this area to most efficiently propose a new PhD program that resonates with the faculty, is responsive to state needs (jobs outside of academe/non-competitive with other Florida universities), and optimally synergizes within and outside of CHPS. While challenging this is also very exciting.

Kinesiology is a rapidly growing discipline and the job outlooks looks very positive for students trained at each degree level. Specific to the PhD, past graduates have been placed either in post-doctoral

research positions or faculty positions. As the program is improved this job placement should get even better. Evaluation of a PhD track option that prepares students to work in professional sports or university athletics may be beneficial to expand the scope of job possibilities for graduates.

In summary, the PhD program is small and high quality and has done remarkably with minimal resources.

APPENDIX E – SURVEY

UCF Kinesiology PhD Interest Survey

Start of Block: Introduction

Q1

The purpose of this survey is to determine the level of interest in pursuing your Ph.D. in Kinesiology at the University of Central Florida.

The American Kinesiology Association defines kinesiology as "the academic discipline that involves studying physical activity and its impact on health, society, and quality of life." One of the kinesiology strengths is it's multidimensional approach, which includes biomechanics, clinical exercise physiology, motor control / behavior, sports performance, and injury prevention. The Ph.D. program will prepare students to work in both the public and private sectors in research, education, clinics, hospitals, sports science / sports medicine, and promote well-being across the lifespan.

End of Block: Introduction

Start of Block: Respondent Type

Q2 Select the degree in which you are currently enrolled.

- O Athletic Training MAT (1)
- O Health Sciences BS (6)
- Kinesiology BS (2)
- Kinesiology MS (3)
- O Physical Therapy DPT (4)

End of Block: Respondent Type

Start of Block: Athletic Training MAT

Q3 Would you be interested in applying to the Ph.D. program in Kinesiology at UCF?

 \bigcirc Extremely Interested (1)

 \bigcirc Very Interested (2)

 \bigcirc Interested (3)

 \bigcirc Not Interested (4)

End of Block: Athletic Training MAT

Start of Block: Kinesiology BS or Health Sciences BS

Q4 Would you consider applying to the MS program in Kinesiology at UCF?

\bigcirc Extremely likely (1)
\bigcirc Very Likely (2)
\bigcirc Likely (3)
O Unlikely (4)

Q5 Would you be interested in getting your Ph.D. in Kinesiology at UCF?

\bigcirc	Extremely	Interested	(1)
_			· · /

\bigcirc	Verv	Interested	(2)
\smile	very	meresteu	(4)

 \bigcirc Interested (3)

 \bigcirc Not Interested (4)

End of Block: Kinesiology BS or Health Sciences BS

Start of Block: Kinesiology MS
Q6 Would you be interested in applying to the Ph.D. program in Kinesiology at UCF?

O Extremely Interested (1)

 \bigcirc Very Interested (2)

 \bigcirc Interested (3)

 \bigcirc Not Interested (4)

End of Block: Kinesiology MS

Start of Block: Physical Therapy DPT

Q7 If there were an option to enroll in a dual-degree DPT & PhD in Kinesiology, how likely would you have been to consider this option?

Extremely likely (1)
 Very Likely (2)
 Likely (3)
 Unlikely (4)
 End of Block: Physical Therapy DPT

Default Report

UCF Kinesiology PhD Interest Survey October 13, 2020 11:23 AM MDT

Q2 - Select the degree in which you are currently enrolled.



#	Field	Choice C	Count
1	Athletic Training MAT	2.54%	13
2	Kinesiology BS	35.94%	184
3	Kinesiology MS	4.88%	25
4	Physical Therapy DPT	17.97%	92
6	Health Sciences BS	38.67%	198
			512



Q3 - Would you be interested in applying to the Ph.D. program in Kinesiology at UCF?



Q4 - Would you consider applying to the MS program in Kinesiology at UCF?



Q5 - Would you be interested in getting your Ph.D. in Kinesiology at UCF?



Q6 - Would you be interested in applying to the Ph.D. program in Kinesiology at UCF?

Q7 - If there were an option to enroll in a dual-degree DPT & PhD in Kinesiology, how

likely would you have been to consider this option?



Showing rows 1 - 5 of 5

End of Report

APPENDIX F – PARTICIPATING FACULTY VITAE

- Dr. David Fukuda Associate Professor, School of Kinesiology and Physical Therapy
- Dr. Ethan Hill Assistant Professor, School of Kinesiology and Physical Therapy
- **Dr. Jeffrey Stout** *Professor*, School of Kinesiology and Physical Therapy
- Dr. Adam Wells Assistant Professor, School of Kinesiology and Physical Therapy
- **Dr. William Hanney** Associate Professor, School of Kinesiology and Physical Therapy
- **Dr. Matt Stock** *Associate Professor*, School of Kinesiology and Physical Therapy
- Dr. L. Colby Mangum Assistant Professor, Athletic Training
- Dr. Michelle Gregoire Gill Professor, Learning Sciences and Educational Research
- **Dr. Debbie Hahs-Vaughn** *Professor*, Learning Sciences and Educational Research
- **Dr. Steven Sivo** *Professor*, Learning Sciences and Educational Research

EDUCATION - Ph.D. Exercise Physiology, University of Oklahoma

ACADEMIC EXPERIENCE:

- **2018-current** Associate Professor, School of Kinesiology and Physical Therapy, University of Central Florida Division Chair, Division of Kinesiology, University of Central Florida
- 2013-2018 Assistant Professor, Department of Educational and Human Sciences, University of Central Florida
- 2017-2018 Program Coordinator, Sport and Exercise Science Program, University of Central Florida
- 2014-2018 Degree/Track Facilitator, Sport and Exercise Science Program, University of Central Florida
- 2012-2013 Assistant Professor, Department of Exercise Science, *Creighton University*

AWARDS:

- Teaching Incentive Program Award, Office of Faculty Excellence, University of Central Florida, 2019
- Excellence in Research Award, College of Health Professions and Sciences, University of Central Florida, 2019
- Research Incentive Award, Office of Faculty Excellence, University of Central Florida, 2018
- Terry J. Housh Outstanding Young Investigator of the Year Award, National Strength and Conditioning Association, 2016

CITATION METRICS:

	Citations	h-index	(as of 09/01/20)	
Google Scholar	3465	32	i10-index: 95	h-index description
ResearchGate	2423	26	RG Score 44.72; 97.5 th %ile	from Scopus
<u>Scopus</u>	1690	21		

Relative Citation Ratio (NIH iCite; 2009-2018)						
RCR (±SEM)Weighted RCR# of publications						
1.20 (±0.10)	148.57	124				

RCR description from the NIH Office of Portfolio Analysis

PUBLICATIONS:

	Count (as of 09/01/20)		
Total peer-reviewed publications	168		NCPI Piblicgraphy
# as lead or corresponding author	44		Rublene Profile
# with international collaborators	33		
Conference presentations	165	•	

Highly Cited (as lead or corresponding author):

- Fukuda DH, KL Kendall, AE Smith, ME Wray, RP Hetrick, and JR Stout. The effects of intensive judo training on anthropometric and sport-specific performance measures in youth athletes. J Strength Cond Res. 2013 Feb; 27(2): 331-339. (Cited 69 times)
- Wells AJ, **DH Fukuda**, JR Hoffman, AM Gonzalez, AR Jajtner, JR Townsend, GT Mangine, MS Fragala, and

Recent (as lead, 2nd, or corresponding author):

- Clark NW, CH Herring, ER Goldstein, JR Stout, AJ Wells, and DH Fukuda. Heart rate variability behavior during exercise and short-term recovery following energy drink consumption. Nutrients. 2020 Aug. 12(8): 2372.
- Harat I, NW Clark, D Boffey, CH Herring, ER Goldstein, MJ Redd, AJ Wells, JR Stout, and DH Fukuda.

JR Stout. Vastus lateralis exhibits non-homogenous adaptation to resistance training. Muscle Nerve. 2014 Nov; 50(5):785-793. (Cited **55** times)

- Mangine GT, DH Fukuda, MB La Monica, AM Gonzalez, AJ Wells, JR Townsend, AR Jajtner, MS Fragala, JR Stout, and JR Hoffman. Influence of Gender and Muscle Architecture Asymmetry on Jump and Sprint Performance. J Sports Sci Med. 2014; 13(4): 904-911. (Cited 46 times)
- Fukuda DH, AE Smith, KL Kendall, and JR Stout. The possible combinatory effects of acute consumption of caffeine, creatine, and amino acids on the improvement of anaerobic running performance in humans. Nutr Res. 2010 Sep; 30(9): 607-614. (Cited **38** times)
- Fukuda DH, AE Smith, KL Kendall, TR Dwyer, CM Kerksick, TW Beck, JT Cramer, and JR Stout. The effects of creatine loading and gender on anaerobic running capacity. J Strength Cond Res. 2010 Jul; 24(7): 1826-1833. (Cited **37** times)

Dynamic Postactivation Potentiation Protocol Improves Rowing Performance in Experienced Female Rowers. Journal of Sports Sciences. 2020 Jul. 38(14): 1615-1623.

- Morales J, DH Fukuda, C Curto, M Iteya, H Kubota, E Peirantozzi, and MB La Monica. Progression of Combat Sport Activities for Youth Athletes. Strength and Conditioning Journal. 2020 Jun; 42(3): 78-89.
- Starling-Smith TM, MB La Monica, JR Stout, DH Fukuda. Minimal effects of moderate normobaric hypoxia on the upper-body work-time relationship in recreationally-active women. High Altitude Medicine and Biology. 2020 Mar; 21(1): 62-69.
- La Monica MB, DH Fukuda, TM Starling-Smith, NW Clark, and VLG Panissa. Alterations in energy system contribution following upper body sprint interval training. European Journal of Applied Physiology. 2020 Mar; 120(3): 643-651.

BOOK:

1. Fukuda DH. Assessments for Sport and Athletic Performance. Champaign, IL: Human Kinetics, 2019. link

Recent BOOK CHAPTERS:

- 1. **Fukuda DH,** JR Hoffman, and JR Stout. *Strength and Speed/Power Athletes.* Chapter 11, pp. 211-231. <u>Body Composition:</u> <u>Health and Performance in Exercise and Sport.</u> HC Lukaski (Ed). Boca Raton, FL: CRC Press, 2017. <u>link</u>
- 2. **Fukuda DH** and MB La Monica. *Youth Development in Combat Sports*. Chapter 2, pp. 23-55. <u>Science and Medicine in Combat Sports</u>. P Drid (Ed). Hauppauge, NY: Nova Science Publishers, Inc., 2017. <u>link</u>
- Sterkowicz-Przybycień K, DH Fukuda, E Franchini, and S Sterkowicz. Special Judo Fitness Test: Results and Applications. Chapter 7, pp. 145-173. <u>Science and Medicine in Combat Sports</u>. P Drid (Ed). Hauppauge, NY: Nova Science Publishers, Inc., 2017. <u>link</u>
- 4. Costa PB, and **DH Fukuda**. *Training Programs for Youth*. Chapter 16, pp. 341-355. <u>Strength Training</u>. 2nd edition. National Strength and Conditioning Association and LE Brown (Ed). Champaign, IL: Human Kinetics, 2017. <u>link</u>

ONLINE REPOSITORY DOCUMENTS

 Fukuda, D. 2018. Promote active learning in group projects through the use of the transparent assignment framework. In Chen, B., deNoyelles, A., & Thompson, K. (Eds.), <u>Teaching Online Pedagogical Repository</u>. Orlando, FL: University of Central Florida Center for Distributed Learning.

Chair Committee Total (as of 09/01/20) Doctoral dissertations (Ph.D.) 7 14 21 Dissertation in practice (Ed.D.) 0 1 1 7 14 21 Master's theses 2 8 10 Honors undergraduate theses

DISSERTATION & THESIS COMMITTEES

External Examiner

- Emilly C. Dunn The manifestations of fatigue in amateur boxing performance Doctoral Thesis (Edith Cowan University, Joondalup, Western Australia), Chair: Anthony J. Blazevich, 2018-2019
- Mark Kramer Physiological and mechanistic characteristics of all-out running related to the critical speed concept Doctoral Thesis (Nelson Mandela University, Port Elizabeth, South Africa), Chair: Rosa du Randt, 2018-2019

Recent STUDENT AWARDS:

Outstanding Dissertation 2018-2019 (University-level), Social Science, Humanities, Education, Business, Art and Health category

Michael La Monica, Examining work-to-rest ratios to optimize upper body interval training **Dissertation Chair**

Best in Category, Health Sciences – 2019 UCF Graduate Research Forum Nicolas Clark, Vagal Withdrawal is not Dependent on Oxygen Availability or Exercise Intensity during Upper-Body Exercise

Faculty Mentor

Best in Category (1st Place – Masters), Life Sciences – 2016 UCF Graduate Research Forum Alyssa Varanoske, Echogenicity Quantified by Ultrasonographic Panoramic Scans Compared to Still-Images in Collegiate Men **Faculty Mentor**

INTERNATIONAL SCHOLAR SPONSORSHIP:

- Valéria Panissa, University of Sao Paulo, Sao Paulo, Brazil J-1 Exchange: Short-Term Scholar (Fall 2017/Spring 2018)
- José Morales Aznar, Ramon Llull University, Barcelona, Spain J-1 Exchange: Short-Term Scholar (Spring 2017)

Recent GRANTS/CONTRACTS/FUNDING AWARDED:

\$53,095.00 (Celsius Holdings, Inc.) Fall 2017 The acute effects of different Celsius[™] formulas (100mg vs. 140mg) on energy expenditure and fat metabolism in healthy adults.

Co-principal investigator (Principal investigators, Adam J. Wells and Jeffrey R. Stout)

\$37,499.00 (White Paper for Salary Support for Large Proposal Development, UCF Office of Research and **Commercialization) Fall 2017**

Proposal development for NIH R01: Reducing Health Disparities Among Minority and Underserved Children Co-Investigator (Principal investigators: Suzanne Martin and Jeannette M. Garcia)

\$21,586.94 (Exploratory Model Demonstration Grants - Inspiring Teaching, College of Education and Human • Performance) Spring 2017

Bringing Physical Activity and Nutrition into the Classroom to Inspire Teachers and Students to Engage in Healthy **Behaviors**

Co-principal investigator (Principal investigator, Jeanette M. Garcia)

- \$7,500.00 (In-House Research Grants, UCF Office of Research and Commercialization) Fall 2016 Mixed Method Evaluation of a Modified-Judo Training Program for Children with Autism Spectrum Disorder Co-principal investigator (Principal investigator, Jeanette M. Garcia)
- \$60,927.76 (Technology Fee Proposal, University of Central Florida) Fall 2016 • Student Experiences through the Non-Invasive Assessment of Neuromuscular Function and Muscle Composition Principal investigator

Recent GRANTS/CONTRACTS/FUNDING SUBMITTED:

- 1. \$3,575,677.00 (R01, National Institutes of Health) Summer 2020 Sex differences in lower-extremity physical function and neuroplasticity during limb immobilization and rehabilitation Co-investigator (Principal Investigator, Matt Stock)
- \$678,238.00 (R34, National Institutes of Health) Summer 2020
 Feasibility of a Mindfulness-Based Judo Program Incorporating Wearable Technology to Increase Physical Activity in Youth with AutismSpectrum Disorder
 Co-investigator (Principal Investigator, Jeanette Garcia)
- 3. \$61,173.00 (Interdisciplinary Research Award IR1 Interdisciplinary Team Building, UCF Office of Research) Fall 2019

Measuring and Validating Metrics of Play Behavior in Young Children Co-principal investigator (Principal investigators, Dalena Dillman-Taylor and Annie S. Wu)

4. **\$151,764.42 (Technology Fee Proposal, University of Central Florida) Fall 2019** *Increasing Student Access to Kinesiology-Related Clinical Learning Environments* Principal investigator

Recent INVITED PRESENTATIONS:

- 1. Body composition implications for strength and speed power athletes. Presented at the Federal University of Santa Catarina as part of a post-graduate special topics course in Florianopolis, Brazil. November 20th, 2019.
- 2. *Practical implementation of assessments for sport and athletic performance*. Presented at the Federal University of Santa Catarina as part of a post-graduate special topics course in Florianopolis, Brazil. November 18th, 2019.
- 3. *Exploring High-Intensity Intermittent Exercise using the Work-Time Relationship.* Presented at the Critical Power: Unlocking the Limits of Human Performance Symposium in Provo, UT. October 13th, 2018.
- 4. Youth Development in Combat Sports. Presented at the International Society of Sports Nutrition (ISSN)-UCF Conference Sports Nutrition for Body Composition in Orlando, FL. Novermber 4th, 2017.
- 5. Unconventional Training Methods in Strength and Conditioning: Examples from Combat Sports. Presented at Beijing Sport University Strength and Conditioning Symposium in Beijing China. April 8th, 2016.

Recent Relevant UCF-Related News

Graduate Students Win UCF and College Awards for Outstanding Research, Teaching

Michael La Monica '18 Ph.D. is the recipient of UCF's 2018-19 award for Outstanding Dissertation in the Social Science, Humanities, Education, Business, Art and Health category. He completed his doctorate in...

In New Study, Children With Autism Learn the Gentle Way of Judo

For one hour each week, children in a new UCF research study shed their label of autism, don white uniforms called judogis and become judokas — practitioners of the martial...

UCF Athletics, Kinesiology Program Team Up for Student-Athletes' Well-Being

Athletics Director Danny White (left) and Interim Dean Jeffrey Stout UCF Athletics and the university's new School of Kinesiology and Physical Therapy are partnering to enhance the well-being and performance...

Assistant Professor Named Senior Associate Editor of The Journal of Strength and Conditioning Research

Sport and exercise science assistant professor David Fukuda's passion for judo and wrestling shaped his career. He's a former national and international judo competitor and judo black belt who enjoys coaching and...

EDUCATION: Ph.D. Exercise Physiology, University of Nebraska – Lincoln

ACADEMIC EXPERIENCE:

2019-Present Assistant Professor, School of Kinesiology, University of Central Florida

AWARDS:

- NSF Motor Control Student Travel Grant, 2018
- National Strength and Conditioning Association Challenge Scholarship 2016, 2017

CITATION METRICS:

	Citations	h-index	(as of 09/15/2020)	h index description
Google Scholar	582	11	i10-index: 16	from Scopus
ResearchGate	408	9	RG Score 35.55; 92.5 %ile	

PUBLICATIONS:

	Count (as of 9/15/2019)	Since 2016	
Total peer-reviewed publications	70	59	UCF Profile
# as lead or corresponding author	20	19	
Conference presentations	47	34	

Publications Generated from Federally Funded Grants as Priniciple Investigator

- Hill, E.C. Eccentric, but not concentric venous blood flow restriction resistance training increases muscle strength in the untrained limb. *Physical Therapy in Sport* 30;43:1-7, **2020**. DOI: 10.1016/j.ptsp.2020.01.013
- Hill, E.C., Housh, T.J., Keller, J.L., Smith, C.M., Anders, J.P., Schmidt, R.J., and Johnson, G.O. Low-load blood flow restriction elicits greater concentric strength than non-blood flow restriction but similar isometric strength and muscle size. *European Journal of Applied Physiology* 120(2), 425-441, **2019**.
- Hill, E.C., Housh, T.J., Keller, J.L., Smith, C.M., Schmidt, R.J., and Johnson, G.O. Eccentric and concentric blood flow restriction resistance training on indices of delayed onset muscle soreness in untrained women. *European Journal of Applied Physiology* 119(10):2363-2373, **2019**. DOI: 10.1007/s00421-019-04220-8
- Hill, E.C., Housh, T.J., Keller, J.L., Smith, C.M., Schmidt, R.J., and Johnson, G.O. The validity of the EMG and MMG techniques for identifying early-phase muscle hypertrophy from low-load blood flow restriction resistance training. *Physiological Measurement*. Published ahead of print, **2019**. DOI: 10.1088/1361-6579/ab057e.
- Hill, E.C., Housh, T.J., Smith, C.M., Schmidt, R.J., and Johnson, G.O. Early phase adaptations in muscle strength and hypertrophy as a result of low-intensity blood flow restriction resistance training. *European Journal of Applied Physiology* 118(9):1831-1843, **2018**.

Recent STUDENT AWARDS (since 2016)

 McKnight Doctoral Fellowship 2020-2024 Paola Rivera Faculty Mentor

DISSERTATION & THESIS COMMITTEES

	Chair		Comr	nittee
	Total	Since 2016	Total	Since 2016
Doctoral dissertations (Ph.D.)	0	0	2	2
Dissertation in practice (Ed.D.)	0	0	0	0
Master's theses	0	0	1	1
Honors in the Major Theses	0	0	1	1

Recent GRANTS/FUNDING AWARDED

- \$34,545 (Cure Wave Lasers, Inc.) Fall 2020 The effects of cold laser on paraspinal muscle oxygenation, pressure pain thresholds, muscle edema and quality, and perceived outcomes in patients with chronic low back pain Co-principal investigator (Principal investigators, William Hanney)
- \$4,000 (NASA Nebraska Space Grant) Fall 2018 The effects of blood flow restriction resistance training on muscle strength, power, hypertrophy, and neuromuscular adaptation Principal investigators
- \$4,000 (NASA Nebraska Space Grant) Fall 2017 Time course of neuromuscular and hypertrophic adaptations as a result of blood flow restriction resistance training Principal investigator
- \$9,635 (NSCA Doctoral Research Grant) Fall 2017
 Effects of eccentric versus concentric blood flow restriction training
 Principal investigator

Recent GRANTS SUBMITTED

 \$150,000 80JSC020N0001-OMNIBUS1:2020 HERO Appendix B: NASA Human Research Program Omnibus Opportunity Fall 2020

Applying physical working capacity at the fatigue threshold and heart rate variability during microgravity exercise and EVAsimulated activities

Principal investigator

 \$749,897 National Science Foundation, Multimodal Sensor Systems for Precision Health Enabled by Data Harnessing, Artificial Intelligence, and Learning (20-556) Summer 2020 New paradigms in multimodal monitoring of muscle health Co investigator (Dringing Investigator, Hanger Manage)

Co-investigator (Principal investigator, Hansen Mansy)

- \$3,300,000 NASA Solicitation TSRAD2020 Summer 2020 A robust human cardiac tissue platform for evaluating the effects of HZE radiation and its countermeasures Co-investigator (Principal investigator, Joddar Binita)
- \$150,000 NASA Human Exploration Research Opportunities, NASA Solicitation 80JSC019N0001-OMNIBUS2 Spring 2020 The separate and combined effects of high intensity interval training and blood flow restriction exercise on muscle function in men and women Principle investigator
- \$150,000 NASA Human Exploration Research Opportunities, NASA Solicitation 80JSC019N0001-OMNIBUS2 NASA Human Exploration Research Opportunities Spring 2020

3D-printed exoskeleton prosthetic enhancement device for EVA gloves Principle investigator

- \$750,000 NASA Solicitation NNH18ZTT001N-FG2 Fall 2019 Validation of ground microgravity analogs in the study of neuro-immune physiological functional interaction Co-investigator (Principle investigator, Esther Beltran)
- \$450,000 NASA Solicitation NNH18ZTT001N-FG2 Fall 2019 Study of muscle characterization and adaptation on a 3D-Bio-printed construct during transient changes in gravity Co-investigator (Principle investigator, Kunal Mitra)

CURRICULUM VITAE Jeffrey R. Stout, Ph.D., FACSM, FISSN, FNSCA

WORK ADDRESS:

Professor, Kinesiology University of Central Florida 407-823-0211 (office); 407-683-6013 (cell) Jeffrey.stout@ucf.edu

PROFESSIONAL PREPARATION:

BA	1989	Exercise Science, Concordia University - Seward, NE
MPE	1992	Exercise Physiology, University of Nebraska – Lincoln
	Thesis:	The Validity of Futrex-5000 and Futrex-1000 for Estimating Body
		Composition in Men and Women.
Ph.D.	1995	Exercise Physiology, University of Nebraska – Lincoln
	Dissertation:	The Relationships among Electromyography, Acoustic Myography, and
		Oxygen Consumption During Incremental Cycle Ergometry.

Vita-At-A-Glance

- 25+ years of Academic, Non-Profit & For-Profit Leadership as President, Vice President, Secretary, Treasurer, Interim Dean, Department Chair, Program and Lab Director, Director of Nutrition R&D.
- 20+ years of university teaching experience
- >290 peer-reviewed publications in more than 60 different research journals
- ~300 presentations internationally and nationally
- 28 Ph.D. students, Chaired & Co-mentored, 11.
- 8 Books, 12 Book Chapters
- Fellow: American College of Sports Medicine; National Strength and Conditioning Association; and International Society of Sports Nutrition
- >3 million in funding

SCHOLARSHIP IMPACT SUMMARY: Google Scholar Profile

	onations	n-index/g-index	9/1/2020
Google Scholar	16,759	64/95	i10-index: 234
ResearchGate	9,632	48	RG Score 48.52; 97.5 th %ile
Web of Science	6,516	39	Web of Science ResearcherID F-5805-2014
Scopus	7120	41	# of publications reviewed 301
Relative Citation Ratio (NIH iCite; 2002-2020)	Avg. 212 pubs RCR: 1.85	Highest RCR: 43.79	# of publications used by iCite: 212
	Google Scholar ResearchGate Web of Science Scopus Relative Citation Ratio (NIH iCite; 2002-2020)	Google Scholar16,759ResearchGate9,632Web of Science6,516Scopus7120Relative Citation Ratio (NIH iCite; 2002-2020)Avg. 212 pubs RCR: 1.85	Google Scholar16,75964/95ResearchGate9,63248Web of Science6,51639Scopus712041Relative Citation Ratio (NIH iCite; 2002-2020)Avg. 212 pubs RCR: 1.85Highest RCR: 43.79

ACADEMIC APPOINTMENTS:

<u>Professor & Founding Director</u>: School of Kinesiology & Physical Therapy, in the College of Health Professions and Sciences. (July 2, 2018-August 7th, August 8th 2019-Current)

- Responsible for the administration and budgeting of undergraduate and graduate programs for the following three programs: Kinesiology (Exercise Science, Athletic Coaching and Administration, BS, MS, PhD), Physical Therapy (DPT), and Athletic Training (MAT). These programs consist of **24** full-time faculty **5** staff with more than **1600** students.
- Accomplishments
 - Formed the Institute of Exercise Physiology and Rehabilitation Science in the new school to encompass all research labs in Athletic Training, Physical Therapy and Kinesiology.
 - US News and World Report 2020 Physical Therapy program went up 40 spots in the rankings, now ranked in top 25%
 - Memorandum of Understanding between the School and UCF Athletics entitled "Sports Science Initiative"
 - Memorandum of Understanding between the School and UCF Athletics to provide all rehabilitative services.
 - Memorandum of Understanding between the School and UCF Student Health to provide all Physical Therapy services.
 - Successfully transition from the BS to the MAT program in Athletic Training
 - Changed the CIP Codes for the BS and MS in Kinesiology.

<u>Professor & Interim Dean</u>: College of Health Professions and Sciences at the University of Central Florida. (August 8, 2018-August 7th 2019).

Responsible for the administration and budgeting of undergraduate and graduate programs for the following 4 units: School of Communication Sciences and Disorders; School of Social Work; School of Kinesiology and Physical Therapy; Department of Health Science. This college consist of ~100 full-time faculty, ~43 staff with more than 7500 students, ~19-million-dollar budget.

<u>Department Chair</u>: Education and Human Sciences. Professor, Sport and Exercise Science Program in the College of Education and Human Performance (2017-July 1st, 2018)

• Responsible for the administration and budgeting of undergraduate and graduate programs for the following three programs: *Sport and Exercise Science, Methodology and Measurement*, and *Instructional Design and Technology*. These programs consist of 20 full-time faculty 3 staff with more than 1600 students.

<u>Program Director</u> Sport and Exercise Science & Associate Chair of Education and Human Sciences in the College of Education and Human Performance (Fall 2014-2017) Associate Professor (Jan. 2012-July 2015), Professor (August 2015-current) <u>Director</u> of Sport and Exercise Science Laboratories – Institute of Exercise Physiology and Wellness, University of Central Florida (2013-2017),.

• Strength Lab, Biochemistry Lab, Human Performance Lab, and Wellness Research Center. Helped to build a top 10 Ph.D. program relative to faculty size in Exercise Physiology according to the National Academy of Kinesiology. Generated over ~1.9 million in funding

<u>Director</u> of the Human Metabolic Laboratory and Body Composition Laboratories. Health and Exercise Science Department, University of Oklahoma – Norman, OK; Assistant Professor (2006-2008) and Associate Professor (2009-2011)

• Generated over ~2.8 million in funding

<u>Assistant Professor</u> (Tenure Track) – Department of Exercise Science and Health Promotion, *Florida Atlantic University - Davie, FL* (2004 – 2006)

<u>Assistant Professor</u> (Tenure Track) & Co-Director Human Performance Research Laboratory - Department of Exercise Science, Creighton University – Omaha, NE. (1995 – 2000)

PROFESSIONAL CERTIFICATIONS, SOCIETY FELLOWSHIPS & TRAINING

- UCF Chairs and Directors Excellence Program August 16th, 2019 Current
- Development for Deans and Academic Leaders, Council for advancement and support of Education. Ft. Myers, FL Jan. 30th – Feb. 1st, 2019
- UCF Performance Management, University of Central Florida, Jan. 18th, 2018
- UCF Employee Code of Conduct Certification, University of Central Florida, Jan. 17th, 2018
- Institute for Academic Leadership Workshop, Florida State University, Oct. 1-4th, 2017.; June 3-6, 2018.
- Provost Academic Leadership Program, University of Central Florida, 2015-2016.
- Laboratory and Biological Safety Training. Environmental and Health & Safety, University of Central Florida. July 24, 2014.
- HEADS UP! Concussion in Youth Sports Certified. CDC 09/08/2018
- SafeSport Judo Certified (#1101). United States Olympic Committee. 12/16/2012-12/162014
- Heartsaver AED Certified. American Heart Association. 9/2/2011 9/2/2013
- Shodan (1st Degree Black Belt) in Olympic Sport of Judo (Certified by Patrick Burris, USA Judo, and US Olympic Committee. #10150944985). October 15th, 2009.
- National Level Judo Coach, USA Judo, 2011-2017
- Continental Level Judo Coach, USA Judo, 2018-Current
- Fellow of the National Strength and Conditioning Association (FNSCA), January 8, 2007.
- Fellow of the International Society of Sports Nutrition (FISSN), August 20, 2004.
- Fellow of the American College of Sports Medicine (FACSM), American College of Sports Medicine (ACSM), May 29, 2000.
- Certified Strength and Conditioning Specialist with Distinction (CSCS). National Strength and Conditioning Association (NSCA) Certification Commission. February 4, 2000-2018.
- National Strength and Conditioning Association Certified Personal Trainer with Distinction (NSCA-CPT*D). NSCA Certification Commission. February 4, 2000-2003.

HONORS AND AWARDS

- Alumni Achievement Award, University of Nebraska-Lincoln, May 3rd, 2018.
- Office of Research & Commercialization's (ORC) Research Mentoring Award, University of Central Florida. May 1st, 2017
- UCF Research Incentive Award. University of Central Florida, February 24th, 2017.
- "DOC" Counsilman Science Award. United States Olympic Committee, Colorado Springs, CO. 2016
- Educator of the Year National Strength and Conditioning Association. Orlando Florida, July 9th, 2015
- Outstanding Sports Scientist of the Year Award. National Strength and Conditioning Association, 2013.
- Top 100 Externally-Funded Principal Investigators. University of Oklahoma, 2009, 2010, 2011.
- Research Achievement Award in Nutrition. National Strength and Conditioning Association, 2008.
- Awarded "Superior Meritorious" 2004-2005 academic year: Florida Atlantic University, College of Education, 2005.
- Young Alumnus of the Year Award. Concordia University, Seward, NE. 2004.
- Editorial Excellence Award. The Journal of Strength and Conditioning Research, 2001.
- Young Investigator of the Year Award. National Strength and Conditioning Association, 2001.
- William F. Kelley Award for Outstanding Academic Achievement: Creighton University, 1997.

CLASSES TAUGHT:

- <u>University of Central Florida</u>: (2012-Current) PET 3137 Capstone in Sport and Exercise Science; PET 4351 Exercise Physiology; PET 4906 Independent Study; PET 6908 Independent Study; PET 6376 Sports Nutrition; PET 6938 Dietary and Nutritional Supplementation; PET 6971 Thesis; PET 7535 Research & Experimental Design in Exercise Physiology; IDS 4912 Research; IDS 7938 Research Cluster; PET 7980 Dissertation Research
- <u>University of Oklahoma</u> (2006-2011): HES 3980 Honors Research; HES 3990 Independent Study; HES 4823 Sport and Exercise Nutrition; HES 4990 Independent Study; HES 5980 Research Master's Thesis; HES 5990 Independent Study; HES 6834 Human Body Composition; HES 6723 Sports Nutrition/ Ergogenic Aids; HES 6970 Doctoral Seminar; HES 6980 Research Dissertation; HES 6990 Independent Study
- <u>Florida Atlantic University</u> (2004-2006): Stress Management, Kinesiology, Leadership II, Advanced Strength and Conditioning, Advanced Sports Nutrition
- <u>Creighton University</u> (1995-2000): Basic Statistics and Research Design, Exercise Physiology with Lab, Biomechanics, Directed Independent Research, Directed Independent Study

ACADEMIC SERVICE:

Department:

- Annual Faculty Evaluation Standards and Procedures Committee 2014-2015
- Chair, 3 Tenure Faculty, 1 Instructional search committees 2013,2014, 2015
- Promotion and Tenure Committee (elected position) (Chair) 2014-15
- Undergraduate Curriculum Committee (2006-2009)
- Graduate Committee (2009-Current)
- Committee A (2009 Current)
- Department Research Liaison (2011-Current)
- Developed a new graduate course (Sports Nutrition) (2009)
- OU NSCA-ERP Certified Personal Training- Sponsor (2008)
- OU NSCA-ERP Certified Strength and Conditioning Specialist -Co-Director (2008)
- Graduate Curriculum Committee (2004-2006)
- Developed new Strength and Conditioning MS track (2005)
- Developed a new graduate course (Advanced Sports Nutrition) (2005)
- FAU NSCA-ERP Certified Strength and Conditioning Specialist- Sponsor (2005)
- FAU NSCA-ERP Certified Strength and Conditioning Specialist- Director (2005)

College:

- Assistant Dean for Academic Services, Search Committee (Chair 2020)
- Undergraduate Research Symposium (December 4, 2019; Judge)
- Associate Dean of Clinical Affairs Search Committee (Chair 2019)
- Strategic Planning Leadership Committee (2019)
- Director of Communications Search Committee (2019)
- Promotion and Tenure Committee (elected position) (2016-2018)
- Instructor & Lecturer Promotion Committee (elected position) (2014-1015)
- Department & School P&T Committees for 2015-16
- Research Incentive Award Committee (Chair 2015) (2014-2015)
- Dean Search Committee (2015)
- Associate Dean of Research Search Committee (2016)
- Undergraduate Admission and Retention Committee (2015-2017)
- Doctoral Council (2016- 2017)

University:

- Vice Provost for Teaching and Learning & Dean of Undergraduate Studies Search Committee (Co-Chair, May 2019 September 2019)
- Academic Health Sciences Center Executive Council (2018 2019)
- Academic Health Sciences Center Transition Team Member (2017-2018)
- Scholarship and Awards Recognition (Developing new research award) 2017
- Development of Academic Health Sciences Center (Task Force member) 2017
- University Health and Wellness Task Force (2017)
- University Travel Committee 2013-2015 (2015 Chair)
- Research Incentive Award 2015
- Collaborative on Academic Careers in Higher Education (COACHE) (2016)
- University Appreciation and Recognition 2016 (Co-Chair)
- Science Advisory Committee for the Vice President of Research (2009 2010)
- Faculty Senate (2005-2006)

EDUCATION: Ph.D. Education-Exercise Physiology, University of Central Florida, 2015

ACADEMIC EXPERIENCE:

2018-current
 2016-2018
 Assistant Professor, School of Kinesiology and Physical Therapy, *University of Central Florida* 2016-2016
 Assistant Professor, Department of Educational and Human Sciences, *University of Central Florida* 2015-2016
 Assistant Professor, School of Hoolth and Kinesiology, *Coorgia Southern University*

2015-2016 Assistant Professor, School of Health and Kinesiology, Georgia Southern University

CITATION METRICS:

	Citations	h-index	i10 Index	In the days of a contraction
Google Scholar	1355	23	40	from Scopus
Publons	620	17		

Relative Citation Ratio (NIH iCite; 2012-2018)						
Mean RCR (±SEM)	Weighted RCR	# of publications				
1.33 (±0.16)	61.21	46				

RCR description from the NIH Office of Portfolio Analysis

PUBLICATIONS:

	Count (as of 10/30/2019)	Since May 2015	•	UCF Profile
Total peer-reviewed publications	58	36	•	NCBI Bibliography
# as lead or corresponding author	14	9	•	Publions Profile
Published Abstracts	58	25	•	ORCID Profile

Highly Cited (as lead or corresponding author):

- Wells AJ, Hoffman JR, Beyer KS, Jajtner AR, Gonzalez AM, Townsend JR, Mangine GT, Robinson IV EH, McCormack, WP, Fragala MS, Stout JR. Reliability of the Dynavision[™] D2 for assessing reaction time performance. Journal of Sports Science and Medicine. 13: 145-150, 2014 (Cited 67 times)
- Wells AJ, Fukuda DH, Hoffman JR, Gonzalez AM, Jajtner AR, Townsend JR, Mangine GT, Fragala MS, Stout JR. Vastus lateralis exhibits non-homogenous adaptation to resistance training. Muscle & Nerve. 50: 785-793, 2014 (Cited 55 times)
- Wells AJ, Hoffman JR, Jajtner AR, Varanoske AN, Church DD, Gonzalez AM, Townsend JR, Boone CH, Baker KM, Beyer KS, Mangine GT, Oliviera LP, Fukuda DH, Stout JR. Monocyte recruitment after high-intensity and high-volume

Recent (as lead, 2nd, or corresponding author):

- Coker NA, Wells AJ, Gepner Y. The effect of heat stress on running performance in collegiate male soccer players. Journal of Strength and Conditioning Research. 34(4): 1141-1149, 2020
- Varanoske AN, Wells AJ, Boffey D, Harat I, Frosti CL, Kozlowski G, Gepner Y, Hoffman JR. Effects of High-Dose, Short-Duration β-Alanine Supplementation on Cognitive Function, Mood, and Circulating Brain-Derived Neurotropic Factor (BDNF) in Recreationally-Active Males Before Simulated Military Operational Stress. Journal of Dietary Supplements, 2020 [Epub ahead of print].
- Varanoske AN, Coker NA, Johnson BDI, Belity T, Mangine GT, Stout JR, Fukuda DH, Wells AJ. Effects of rest position on morphology of the vastus lateralis and its relationship with lowerbody strength and power. Journal of Functional Morphology and Kinesiology, 4(3): 64, 2019.

resistance exercise. MSSE. 48(6):1169-1178, 2016 (Cited **17** times).

- Wells AJ, Hoffman JR, Gonzalez AM, Stout JR, Fragala MS, Mangine GT, McCormack WP, Jajtner AR, Townsend JR, Robinson EH. Phosphatidylserine and caffeine attenuate postexercise mood disturbance and perception of fatigue in humans. Nutrition Research. 33(6): 464-472, 2013 (Cited 19 times)
- Varanoske AN, Wells AJ, Kozlowski G, Gepner Y, Frosti CL, Boffey D, Coker NA, Harat I, Hoffman JR. Effects of β-Alanine Supplementation on Physical Performance, Cognition, Endocrine Function, and Inflammation During a 24-Hour Simulated Military Operation. Physiological Reports, 6(24): e13938, 2018.
- Coker NA, Varanoske AN, Baker KM, Hahs-Vaughn D, Wells AJ. Predictors of Competitive Powerlifting Success in National-Level Powerlifters: A Multi-level Analysis. International Journal of Performance Analysis in Sport, 18(5): 796-805, 2018
- Arroyo E, Wells AJ, Gordon JA, Varanoske AN, Gepner Y, Coker NA, Church DD, Fukuda DH, Stout JR, Hoffman JR. TNF-α and STNFR Responses in Young vs. Middle-Aged Males Following Eccentric Exercise. Experimental Gerontology, 100: 28-35, 2017.

BOOK CHAPTERS:

1. Wells AJ. *Caffeine*. Chapter 11, pp. 206-232. <u>Dietary Supplementation in Sport and Exercise: Evidence, Safety, and Ergogenic Benefits.</u> Jay Hoffman (Ed). London, UK: Routledge Press, 2019. <u>Link</u>

ONLINE REPOSITORY DOCUMENTS

 Wells, A. 2019. Utilizing active learning techniques to promote application of knowledge. In Chen, B., deNoyelles, A., & Thompson, K. (Eds.), <u>Teaching Online Pedagogical Repository</u>. Orlando, FL: University of Central Florida Center for Distributed Learning.

DISSERTATION & THESIS COMMITTEES

	Chair		Committee	
	Total	Since 2015	Total	Since 2015
Doctoral dissertations (Ph.D.)	2	2	5	5
Master's theses	3	3	4	4

GRANTS/FUNDING AWARDED (since 2015)

- \$287,686.17 (Technology Fee, UCF Information Technologies and Resources) Spring 2020 Refresh of Kinesiology Teaching Lab to enhance student learning experiences Principle Investigator
- \$417,424.69 (Technology Fee, UCF Information Technologies and Resources) Fall 2018 Optimization of existing lab spaces to enhance student instructional lab experiences Principle Investigator
- \$169,268.52 (Technology Fee, UCF Information Technologies and Resources) Spring 2018 Enhancing student instruction and research in exercise hematology Principle Investigator

- \$7,488.00 (UCF ORC VPR Advancement of Early Career Researchers Grant) Spring 2018 Oral melatonin supplementation and the inflammatory response to resistance exercise Principal investigator
- \$53,095.00 (Celsius Holdings, Inc.) Fall 2017 The acute effects of different Celsius[™] formulas (100mg vs. 140mg) on energy expenditure and fat metabolism in healthy adults. Co-principal investigator (Principal investigators, David F. Fukuda and Jeffrey R. Stout)
- \$23,990.28 (National Strength and Conditioning Association Foundation: Young Investigator Grant) Summer 2017

Beta-Alanine & Inflammation during a Simulated Military Operation (SMO) Principal investigator

- \$8000.00 (American Athletic Conference Academic Consortium) Spring 2017 Effects of a Simulated Soccer Match on Neuropsychological and Cognitive Function: A pilot Study. Principle Investigator (Student Investigator, Ryan Girts).
- \$195,214.32 (Technology Fee, UCF Information Technologies and Resources) Fall 2016
 Using flow cytometry to improve student understanding of immune responses necessary to be competitive graduates
 Principle Investigator

PROFESSIONAL CREDENTIALS

- Certified Phlebotomy Technician (CPT) National Healthcareer Association (Exp. 07/24/2022)
- Specialist in Cytometry [SCYM(ASCP)CM] (Exp. 06/30/2023)
- Certified Strength and Conditioning Specialist, recertified with distinction (CSCS*D) (Exp. 12/2020)
- CPR/AED Certified Basic Life Support for Healthcare Providers, American Heart Association (Exp. 10/2020)

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

- National Strength and Conditioning Association (2011 Present)
- American College of Sports Medicine (2011 Present)
- American physiological Society (2013 to Present)

CONFEENCES ATTENDED

- 2020 American Society for Nutrition Annual Conference (Virtual)
- 2019 NSCA National Conference, Washington D.C.
- 2018 American Athletic Conference Academic Consortium Research Symposium, Orlando, FL
- 2017 Experimental Biology, Chicago, IL
- 2016 Annual Meeting of the ACSM, Boston, MA
- 2015 Annual Meeting of the ACSM, San Diego, CA
- 2014 Annual Meeting of the ACSM, Orlando, FL
- 2014 Integrative Physiology of Exercise Conference, Miami, FL
- 2014 ISSN Annual Conference and Expo, Clearwater, FL
- 2013 Annual Meeting of the ACSM, Indianapolis, IN
- 2012 NSCA National Conference, Providence, RI
- 2011 NSCA Youth Symposium, Orlando, FL

REVIEWER ACTIVITY

Editorial Board: Journal of Functional Morphology and Kinesiology

Journals: Invited Reviewer for the following journals: Sports Medicine & Health Science, European Journal of Haematology, Clinical Obesity, Frontiers in Physiology, American Journal of Occupational therapy, Science and Medicine in Football, Journal of Sports Rehabilitation, Journal of Clinical and Translational Research, Medicine and Science in Sports and Exercise, Experimental Gerontology, Nutrition Research, Journal of Strength and Conditioning Research.

Presentations: National Strength and Conditioning Association National Conference Abstracts (2017, 2018, 2019, 2020)

Research Grants: National Strength and Conditioning Association Foundation Graduate Research Grants (2017, 2019, 2020)

INSTRUCTION

Student Awards

- Outstanding Dissertation Award (2020) University Level Award University of Central Florida. Alyssa Varanoske, Effects of Rest Position on Ultrasound-Derived Morphological Characteristics of the Vastus Lateralis and Lower-Body Force Production. Role: Advisor
- Outstanding Dissertation Award (2020) College Level Award UCF College of Health Professions & Sciences. Alyssa Varanoske, Effects of Rest Position on Ultrasound-Derived Morphological Characteristics of the Vastus Lateralis and Lower-Body Force Production. Role: Advisor
- Outstanding Master's Thesis Award (2018) University level award Eliott Arroyo, Effects of an acute highvolume isokinetic intervention on circulating levels of sTNF-α and sTNFR: influence of age. Role: Advisor
- Outstanding Master's Thesis Award (2018) College level award UCF College of Education & Human Performance. Eliott Arroyo, Effects of an acute high-volume isokinetic intervention on circulating levels of sTNF-α and sTNFR: influence of age. Role: Advisor
- Best in Category of Life Sciences and Health (1st Place Masters), 2018 UCF Graduate Research Forum. Ryan Girts, Changes in running and multiple object tracking performance during a 90-minute intermittent soccer performance test. Role: Advisor

Course Development

Quality and High Quality Online Course Designations for PET3361 – Nutrition and Metabolism in Kinesiology (UCF Center for Distributed Learning) February and September 2018, Respectively. Course met the evidence-based criteria necessary to be recognized within the State University System (SUS) of Florida.

Courses Taught

Sport and Exercise Science, University of Central Florida

- PEM2104: Personal Fitness (face-to-face delivery)
- PET3005: Introduction to Sport & Exercise Science (face-to-face delivery)
- PET3097: Health and Wellness (face-to-face delivery)
- PET3361: Nutrition and Metabolism in Sport & Exercise Science (face-to-face, hybrid, online delivery)
- PET4550: Assessment & Evaluation in Sport and Exercise Science (face-to-face delivery)
- PET5355: Exercise and Health (face-to-face delivery)
- PET6515: Assessment & Evaluation in Sport and Exercise Science (face-to-face delivery)
- PET6910: Problem Analysis: Review of Literature (online Delivery)
- PET6971: Thesis Research (face-to-face delivery)
- PET6908: Independent Study (face-to-face delivery)
- IDS7500: Seminar in Educational Research (face-to-face delivery)

Health and Kinesiology, Georgia Southern University

- KINS7421: Applied Sport Physiology (face-to-face, online delivery)
- KINS7238: Human Performance and Nutrition (face-to-face delivery)
- KINS4231: Fitness Evaluation and Exercise Prescription (face-to-face delivery)
- KINS7231: Lab Techniques in Exercise Physiology (face-to-face delivery)

AWARDS

• UCF College of Health Professions & Sciences, Excellence in Undergraduate Teaching Award, 2020.

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors. Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: Hanney, William J.

POSITION TITLE: Associate Professor

eRA COMMONS USER NAME (credential, e.g., agency login): WJHANNEY

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
University of West Florida (Pensacola, FL)	BS	05/1996	Exercise Science/Sports Medicine
University of St. Augustine (St. Augustine, FL)	MPT	05/1999	Physical Therapy
University of St. Augustine (St. Augustine, FL)	DPT	06/2004	Physical Therapy/Manual Therapy
Nova Southeastern University (Fort Lauderdale, FL)	PhD	02/2012	Health Care Sciences

A. Personal Statement

Spinal disorders are a major contributor to disability and healthcare costs worldwide. Therefore, my primary area of research aims to improve accuracy of the physical examination as well as advance conservative treatment approaches for these spinal disorders. My work has established reliability and validity of measurement tools used every day which is vital to clinical practice as treatment choices are based on the accuracy of the examination. My interventional studies have focused primarily on identification of prognostic variables a priori which allows clinicians to determine if a particular course of treatment is likely to be effective. As I continue to expand my research it is vital that we create mechanisms to facilitate compliance with treatment. The proposed project would facilitate development of a novel tool to assist in improving compliance with prescribed treatment in a population which contributes significantly to healthcare costs.

- a) Liu, X., **Hanney, W.J.**, Masaracchio, M., Kolber, M.J., Zhao, M., Spaulding, A.C., Gabriel, M.H. (2018) Immediate physical therapy initiation is associated with reduction in downstream healthcare utilization and costs among patients with acute low back pain. *Physical Therapy*. 98(5): 336-347.
- b) Hanney, W.J., Masaracchio, M., Liu, X., & Kolber, M.J. (2016). The influence of physical therapy guideline adherence on cost and healthcare utilization in patients with low back pain: a systematic review of the literature. PLoS One. 11(6):e0156799. <u>https://dx.doi.org/10.1371/journal.pone.0156799</u>
- c) Liu, X., Hanney, W.J., Masaracchio, M., & Kolber, M.J. (2016). Utilization of payments of office-based physical rehabilitation services among privately insured patients. *Physical Therapy*, 96(2), 202-211. <u>https://dx.doi.org/10.2522/ptj.20150060</u>
- d) **Hanney, W.J.**, & Kolber, M.J. (2009). Implications for physical activity in the population with low back pain. American Journal of Lifestyle Medicine, 3(1), 63-70. <u>http://dx.doi.org/doi:10.1177/1559827608325627</u>

B. Positions and Honors

Faculty Appointment

2015-present University of Central Florida (Orlando, Florida) Associate Professor, (tenured) School of Kinesiology and Physical Therapy Division of Physical Therapy

Other Experience and Professional Memberships

1998-presentAmerican Physical Therapy Association

1998-present 1994-present	Orthopedic Section, American Physical Therapy Association National Strength and Conditioning Association
2012-present	Associate Editor Strength and Conditioning Journal
<u>Honors</u>	
2010	Research Fellow; University of Central Florida; College of Health and Public Affairs
2011	Strength and Conditioning Journal Editorial Excellence Award
2015	Research Incentive Award; University of Central Florida; College of Health and Public Affairs
2016	Nova Southeastern University Distinguished Alumni Achievement Award
2016	Excellence in Research Award, University of Central Florida; College of Health and Public Affairs
2017	The International Journal of Sports Physical Therapy Best Case Study Award; Sports Physical Therapy Section and IJSPT Manuscript Review Board.

C. Contribution to Science

Cost associated with low back pain is significant. Our group evaluated the utilization of payments associated with office-based physical rehabilitation services as well as evaluated the impact that physical therapy services had on downstream costs associated with low back pain. Furthermore, a recent systematic review our team conducted highlighted the need for a standardization of content and timing for rehabilitation interventions.

- a) Liu, X., **Hanney, W.J.**, Masaracchio, M., Kolber, M.J., Zhao, M., Spaulding, A.C., Gabriel, M.H. (2018) Immediate physical therapy initiation is associated with reduction in downstream healthcare utilization and costs among patients with acute low back pain. *Physical Therapy*. 98(5): 336-347.
- b) Hanney, W.J., Masaracchio, M., Liu, X., & Kolber, M.J. (2016). The influence of physical therapy guideline adherence on cost and healthcare utilization in patients with low back pain: a systematic review of the literature. PLoS One. 11(6):e0156799. <u>https://dx.doi.org/10.1371/journal.pone.0156799</u>
- c) Liu, X., Hanney, W.J., Masaracchio, M., & Kolber, M.J. (2016). Utilization of payments of office-based physical rehabilitation services among privately insured patients. *Physical Therapy*, 96(2), 202-211. <u>https://dx.doi.org/10.2522/ptj.20150060</u>

D. Research Support

Completed Research Support

- A study of physical therapist-provided Medicare services. Center for Innovative Healthcare, Inc. Role: Co-Principal Investigator. Effort: 10%. April 2015. Type: C&G External: Funding dates: 04/01/15 – 03/31/17 (\$7,983) [FUNDED]
- The impact of the timing and sequencing of physical therapy on the overall healthcare costs in New York. Principal Investigator: Dr. Xinliang Liu. Role: Co-Principal Investigator. William J. Hanney. Effort: 20%. November 2013. Type C&G External; Funding dates: 2/1/14 – 12/31/20 Ongoing Research (\$280,808) [FUNDED]
- The influence of text-messaging upon perceived pain and self-reported adherence to a prescribed home exercise program. Principal Investigator: Michael Rovito. Role: Co-Principal Investigator. Effort: 40%. Center for Innovative Healthcare, Inc. (CIH). October 2013. Funding dates: 2/1/14 – 3/1/16 (\$3,092) [FUNDED]
- The immediate effects of cervicothoracic manipulation vs. upper trapezius stretch on pressure pain thresholds and range of motion. Role: Principal Investigator. Effort: 100%. In House grant, College of Health and Public Affairs; University of Central Florida. Funding dates: 5/1/13 – 4/30/14. (\$7,496) [FUNDED]

Matt S. Stock, Ph.D., FNSCA, CSCS,*D

Curriculum Vitae

Associate Professor (with tenure) Director, Neuromuscular Plasticity Laboratory School of Kinesiology and Physical Therapy Division of Physical Therapy University of Central Florida 12805 Pegasus Drive, HS 1 - Room 258 Orlando, FL 32816-2205 Office: (407) 823-0364 Lab: (407) 823-0600 Email: <u>matt.stock@ucf.edu</u> Web Links

PubMed Bibliography ResearchGate Page Google Scholar Page Publons ResearcherID: G-8308-2018 ORCID Neuromuscular Plasticity Laboratory

EDUCATION AND ACADEMIC APPOINTMENTS

University Education

2012	Ph.D. in Exercise Physiology University of Oklahoma
2008	M.S. in Exercise Physiology University of Nevada, Las Vegas
2006	B.S. in Exercise Science and Health Promotion

Florida Atlantic University

Professional Training and Continuing Education

010	NULL Designed 1 Construction of Designed Advantage Advantage (Deltimore MD)
019	NIH Regional Seminar on Program Funding and Grants Administration (Baltimore, MD)
017	Intensive Course in Transcranial Magnetic Stimulation Attendee at the Berenson-Allen
	Center for Noninvasive Brain Stimulation (Beth Israel Deaconess Medical Center,
	Harvard University)
017	University of Central Florida College of Health and Public Affairs Research Fellowship
011	LabVIEW Core 1 Workshop (Oklahoma City, OK)
017 011	University of Central Florida College of Health and Public Affairs Research F LabVIEW Core 1 Workshop (Oklahoma City, OK)

Academic Appointments

2019 – Present	University of Central Florida (Orlando, FL) School of Kinesiology and Physical Therapy Division of Physical Therapy Associate Professor with tenure Co-Director, Institute of Exercise Physiology and Rehabilitation Science		
2020 – Present	Core Faculty, Disability, Aging, and Technology Cluster Initiative		
2016 – Present	Director, Neuromuscular Plasticity Laboratory Director, Doctor of Physical Therapy Research Program		
2016 - 2019	Assistant Professor, tenure-earning		

2012 – 2016	Texas Tech University (Lubbock, TX) Department of Kinesiology and Sport Management Assistant Professor, tenure-earning Co-Director, Muscular Assessment Laboratory Co-Director, Human Performance Laboratory
2008 - 2012	University of Oklahoma (Norman, OK) <i>Graduate Assistant, Biophysics Laboratory</i>
2006 – 2008	University of Nevada, Las Vegas (Las Vegas, NV) <i>Graduate Assistant</i>

SELECTED AWARDS AND HONORS

2018	Fellow of the National Strength and Conditioning Association (NSCA)
2017	NSCA Educator of the Year
2016	Tech University New Faculty of the Year Award
2015	Translational Research Award at Texas Tech University Health Sciences Center
	Gender-Specific Medicine & Women's Health Symposium
2014	Texas Tech University Teaching, Learning, and Professional Development Center Faculty Spotlight Award

RESEARCH: PUBLICATIONS, MENTORSHIP, AND FUNDING

Publications in Peer-Reviewed Journals

•	Total number of publications in-press or published:	85
•	Total number of publications as 1 st or corresponding author:	43
•	Number of different journals published in:	34
•	Total times cited according to Google Scholar:	1,197
•	Google Scholar h-index:	20
•	Google Scholar i10-index:	37
•	ResearchGate RG score:	35.79
•	Number of different published student authors:	38

Bold font = Corresponding author

<u>Underlined font</u> = Student working under my mentorship

Prominent Publications

- <u>MacLennan, RJ, Sahebi, M, Becker, N, Davis, E</u>, Garcia, JM, **Stock, MS**. (2020). Declines in skeletal muscle quality vs. size following two weeks of knee joint immobilization. *PeerJ* 8:e8224 <u>doi: 10.7717/peerj.8224</u>
- <u>Carr, JC</u>, Ye, X, Stock, MS, Bemben, MG, DeFreitas, JM. (2019). The time course of cross-education during short-term isometric strength training. *European Journal of Applied Physiology*, 119(6): 1395–1407. <u>doi:10.1007/s00421-019-04130-9</u>
- Thompson, BJ, <u>Whitson, M</u>, Sobolewski, EJ, Stock, MS. (2018). The influence of advancing age, joint angle, and muscle group on strength production characteristics at the knee joint. *Journal of Gerontology: Series A (Biological Sciences)*, 73(5): 603-607. <u>doi:10.1093/gerona/glx156</u>

- Stock, MS, <u>Mota, JA</u>, <u>DeFranco, RN</u>, <u>Grue, KA</u>, <u>Jacobo, AU</u>, Chung, E, Moon, JR, DeFreitas, JM, Beck, TW. (2017). The time course of short-term hypertrophy in the absence of eccentric muscle damage. *European Journal of Applied Physiology*, 117(5):989–1004. <u>doi:10.1007/s00421-017-3587-z</u>
- Thompson, BJ, Stock, MS, <u>Shields, JE</u>, <u>Luera, MJ</u>, <u>Munayer, IK</u>, <u>Mota, JA</u>, <u>Carrillo, EM</u>, <u>Olinghouse, KD</u>. (2015). Barbell deadlift training increases the rate of torque development and vertical jump performance in novices. *Journal of Strength and Conditioning Research*, 29(1):1–10. *NSCA featured article of the month for January, 2015 and most downloaded manuscript on the JSCR website from 2015-2016.* <u>doi:10.1519/JSC.0000000000000691</u>
- Stock, MS, Beck, TW, DeFreitas, JM. (2012). Effects of fatigue on motor unit firing rate versus recruitment threshold relationships. *Muscle and Nerve*, 45(1):100–9. doi:10.1002/mus.22266
- DeFreitas, JM, Beck, TW, Stock, MS, Dillon, MA, Kasishke, PR. (2011). An examination of the time course of training-induced skeletal muscle hypertrophy. *European Journal of Applied Physiology*, 111(11):2785–90. doi:10.1007/s00421-011-1905-4

Textbook Contributions

- Abbot, H, Taber, C, Stock, MS. Chapter 4: Neuromuscular Response. The Professionals Guide to Strength and Conditioning: Safe and Effective Principles for Maximizing Athletic Performance. Nesser, T (Ed). BYU Academic Publishing.
- Stock, MS. Expert View: The Central Nervous System's Role in Muscle Strength Adaptation. To be published in the 3rd edition of *Exercise Physiology: Integrating Theory and Application* by William J. Kraemer, Steven J. Fleck, and Michael R. Deschenes.

Student Research Awards

- Joshua C. Carr, Ph.D. student at the University of Oklahoma; 2019 American Kinesiology Association Graduate Student Writing Award Recipient.
- Alina P. Swafford, M.S. student at the University of Central Florida; Student Podium Presentation Award at the 2018 NSCA National Conference.
- Jacob A. Mota, M.S. student at Texas Tech University; 3rd place in Multidisciplinary category at 2015 Graduate Student Research Poster Competition at Texas Tech University.
- Jacob A. Mota, B.S. student at Texas Tech University; Undergraduate Research Presentation Award at the 2014 NSCA National Conference.
- Jacob A. Mota, B.S. student at Texas Tech University; Top Poster Presenter in Biological and Chemical Sciences at the 2014 Texas Tech University Undergraduate Research Conference.
- Kendra D. Olinghouse, M.S. student at Texas Tech University; 2nd place in Multidisciplinary category at 2014 Graduate Student Research Poster Competition at Texas Tech University.

Selected Invited Lectures

- Stock, MS, <u>Harmon, KK</u>, <u>Girts, RM</u>. Use of transcranial magnetic stimulation to study adaptation within the human neuromuscular system: Lecture and lab! Invited presentation at the 1st Annual Society for Neurosports Conference, 2019, Deerfield Beach, FL.
- Stock, MS. The use of surface EMG in understanding voluntary muscle function: Insights from the work of Dr. Travis W. Beck. Lecture as part of the 5th Symposium on Motor Control in Biomechanics at ACSM 2017 "Motor Learning, Coordination and Adaptation in Exercise," 2017, Denver, CO.
- Stock, MS, <u>Mota, JA</u>. Homogeneity of the relationship between motor unit recruitment thresholds versus derecruitment thresholds across force levels and the lifespan. Podium presentation as part of the "New Insights into the Control Properties of Motor Units" symposium at the XXI International Society of Electrophysiology and Kinesiology Congress, 2016, Chicago, IL.

Research Grants in Review

 2020 NIH R01 (Musculoskeletal Rehabilitation Sciences Study Section) FOA: [PA-20-183] - Research Project Grant (Parent R01 Clinical Trial Required) Application Number: 791527 Project Title: Sex differences in lower-extremity physical function and neuroplasticity during limb immobilization and rehabilitation Role: PI Co-Investigators: Jeanette Garcia, Nicole Dawson, David Fukuda, Debbie Hahs-Vaughn Amount Requested: \$3,575,677 (\$2,490,785 direct costs)

Funded External Research Grants

2017	De Luca Foundation Research Grant (Role: PI/Student Mentor) Project Title: The time course of motor unit adaptations associated with disuse Award Amount: \$15,000.00
2015 - 2016	NSCA Foundation – Graduate Student Research Grant (Role: Co-I/Student Mentor) Project Title: Effects of age and muscle length parameters on single- versus multiple-joint lower-body strength expression: Implications for functional performance outcomes Award Amount: \$5,403.00
2014 - 2016	NSCA Foundation – Young Investigator Grant (Role: PI) Project Title: Adaptations to an after-school high-intensity conditioning program in youth Award Amount: \$19,991.00
2014 - 2015	National Institute of Occupational Safety and Health (NIOSH) – Pilot Project Research (Role: Co-I) Project Title: The effects of work schedule characteristics on fatigue and performance capacities in female healthcare workers: Injury risk profiling assessment Award Amount: \$10,000.00
2014 - 2015	NSCA Foundation – Graduate Student Research Grant (Role: PI/Student Mentor) Project Title: Muscle architectural changes during short-term squat and deadlift training Award Amount: \$6,580.00

NOTEWORTHY PROFESSIONAL SERVICE AND LEADERSHIP

- President of the National Strength and Conditioning Association Foundation (2018–2020)
- Board member University of Central Florida's Institutional Review Board (2018–present)
- Senior Associate Editor, *Journal of Strength and Conditioning Research* (2016–present)
- Reviewer for over 30 different academic journals in the fields of exercise physiology, kinesiology, and physical therapy
- University and College-level Research Council membership (2016–present)
- External promotion and tenure evaluation for two Assistant Professors (University of Nevada, Las Vegas and Kennesaw State University)
- External Ph.D. examiner at Monash University (Australia)

L. Colby Mangum, PhD, LAT, ATC

Abbreviated Curriculum Vitae

(a) PROFESSIONAL PREPARATION

PhD	University of Virginia, Charlottesville, VA	May 2018
	Curry School of Education, Kinesiology – Sports Medicine Doctoral Program	
MEd	University of Virginia, Charlottesville, VA	June 2014
	Curry School of Education, Kinesiology – Athletic Training Master's Program	
BA	The University of North Carolina at Chapel Hill, Chapel Hill, NC	May 2010
	Bachelor of Arts in Exercise and Sport Science – Athletic Training	

(b) CURRENT APPOINTMENT

Assistant Professor in Athletic Training Director of Athletic Training Laboratory

August 2018-Present University of Central Florida, Orlando, FL

Mendelev

Google Scholar

CITATION METRICS Publons Sconus

ONOID	1 doions	Scopus	mendeley	
0000-0001-6443-2951	<u>Publons</u>	<u>Author ID:</u>	<u>Mendeley</u>	<u>Scholar Profile</u>
	<u>Profile</u>	<u>56986299200</u>	<u>Profile</u>	
Publications/Works (since	19	8	16	24
2016)				
Citations	30	32	32	52
<i>h</i> -index, other relevant	4	4	4	4 (h-index)
metrics				1 (i10-index)

(c) PUBLICATIONS

(i) Five (5) publications/products that are the **most current** ones related to your field

- 1. DeJong AF, Mangum LC, Hertel J. Ultrasound Imaging of the Gluteal Muscles During the Y-Balance Test in Individuals With or Without Chronic Ankle Instability. J Athl Train. December 2019. doi:10.4085/1062-6050-363-18. Altmetrics
- 2. Glaviano NR, Marshall AN, Mangum LC, Hart J, Hertel J, Russell S, Saliba SA. Improvements in Lower-Extremity Function Following a Rehabilitation Program With Patterned Electrical Neuromuscular Stimulation in Females With Patellofemoral Pain: A Randomized Controlled Trial. Journal of Sport Rehabilitation. 2019;1(aop):1-11. doi:10.1123/jsr.2019-0278. Altmetrics
- 3. DeJong, A. F., Mangum, LC, & Hertel, J. (2019). Gluteus medius activity during gait is altered in individuals with chronic ankle instability: An ultrasound imaging study. Gait & Posture. 2019;71:7-13. doi:10.1016/j.gaitpost.2019.04.007 Altmetrics
- 4. Sutherlin MA, Mangum LC, Hertel J, Saliba SA, Hart JM. Correlations Between Anthropometric Measures and Muscle Thickness Using Ultrasound Imaging. International

Journal of Athletic Therapy and Training. 2019;24(5):207-212. doi:10.1123/ijatt.2018-0095. <u>Altmetrics</u>

 Glaviano NR, Marshall AN, Mangum LC, Hart JM, Hertel J, Russell S, Saliba SA. Impairment-Based Rehabilitation With Patterned Electrical Neuromuscular Stimulation and Lower Extremity Function in Individuals With Patellofemoral Pain: A Preliminary Study. *Journal of Athletic Training*. February 2019. doi:10.4085/1062-6050-490-17 <u>Altmetrics</u>

(ii) Five (5) other significant publications/products

- 1. Sutherlin MA, **Mangum LC**, Russell S, Saliba S, Hertel J, Hart JM. Landing Stiffness Between Individuals With and Without a History of Low Back Pain. *Journal of Sport Rehabilitation*. November 2018:1-29. doi:10.1123/jsr.2017-0081 <u>Altmetrics</u>
- Sutherlin MA, Gage M, Mangum LC, Hertel J, Russell S, Saliba SA, Hart JM. Changes in Muscle Thickness Across Positions on Ultrasound Imaging in Participants With or Without a History of Low Back Pain. *Journal of Athletic Training*. June 2018 doi: 10.4085/1062-6050-491-16 <u>Altmetrics</u>
- 3. DeJong AF, **Mangum LC**, Resch J, Saliba SA. Ultrasound Imaging Reveals Gluteal Muscle Changes During Gait in Healthy Individuals with Medial Knee Displacement. *Journal of Sport Rehabilitation* March 2018:1-35. doi:10.1123/jsr.2017-0336. <u>Altmetrics</u>
- Mangum LC, Henderson K, Murray K, Saliba SA. Ultrasound Assessment of Transverse Abdominis during Functional Movement. J Ultrasound Med. 2017 Oct 27. doi:10.1002/jum.14466 <u>Altmetrics</u>
- Mangum LC, Sutherlin MA, Saliba SA, Hart JM. Reliability of Ultrasound Imaging Measures of Transverse Abdominis and Lumbar Multifidus in Various Positions. *PM&R*. 2016 Apr;8(4):340-347. doi:10.1016/j.pmrj.2015.09.015. <u>Altmetrics</u>

(iii) Five (5) recent peer-reviewed or invited presentations

- Mangum LC. Hip and Trunk Strengthening Effect in Patients with Patellofemoral Pain. 2020 Tennessee Athletic Trainers' Association Annual Meeting. Nashville, TN. January 2020. (Oral)
- Mangum LC, Caputo C. Postural Ratio Assessment Using Sonographic and Strength Characteristics of the Rectus Abdominis and Erector Spinae. 2020 American Institute of Ultrasound in Medicine Annual Meeting - Virtual. (E-poster, presented on <u>AIUM</u> <u>YouTube</u> due to COVID-19)
- 3. **Mangum LC**, Caputo C, Akbarpour S. Relationships Between Body Mass Normalized Abdominal Wall Thickness and Self-Reported Activity and Global Health. *American College of Sports Medicine Annual Meeting – Virtual.* (Poster, presented on virtual platform due to COVID-19)
- Caputo C, Akbarpour S, Mangum LC. M-mode Ultrasound Detects Changes in Lumbopelvic-Hip Muscle Activity using Body Mass Normalization Technique. American College of Sports Medicine Annual Meeting – Virtual. (Poster, presented on virtual platform due to COVID-19)
- 5. **Mangum LC**, Hryvniak D, Hart JM, Hertel J, Saliba SA. Comparison of Core Muscle Activity in Patients with Patellofemoral Pain, Non-Specific Low Back Pain, and Healthy

Individuals in Static and Dynamic Positions. 2019 National Athletic Trainers' Association Annual Meeting and Symposia, Las Vegas, NV. (Poster)

(d) RECENT GRANT FUNDING & SUPPORT

Source:	Massage Therapy Foundation (Submitted LOI)
Title:	Massage therapy & self-care post pandemic: innovative approaches for office workers using telehealth (\$182,567.00)
PI:	L. Colby Mangum, PhD, ATC
Role:	PI
Period:	January 2021-July 2023
Source:	Florida Physical Therapy Association (Funded)
Title:	Perceived barriers to accessing physical therapy services in Florida among individuals with low back pain (\$5,000.00)
PI:	William Hanney, DPT, PhD, ATC, CSCS
Role:	Co-I
Period:	August 2020 – August 2021
Source:	CureWave Lasers, LLC (Pending final review with UCF OR)
Title:	The effects of cold laser on paraspinal muscle oxygenation, pressure pain thresholds, muscle edema and quality, and perceived outcomes in patients with chronic low back pain (\$34.545.00)
PI:	William Hanney, DPT, PhD, ATC, CSCS
Role:	Co-Pl
Period:	August 2020 – July 2021
Source:	University of Virginia Curry School of Education IDEA Research and
	Development Fund – Support for Doctoral Dissertation (Funded)
Title:	Examining Lumbopelvic-Hip Complex Function in Patients using Ultrasound Imaging (\$1000.00)
PI:	L. Colby Mangum
Role:	PI
Period:	June 2017 – May 2018

Funded University Research Support

1. University of Central Florida Office of Undergraduate Research Grant; Support for undergraduate student Courtney Caputo's Honors in Research Project (\$450.00-Fall 2019)

(e) STUDENT RESEARCH MENTORSHIP

Luk Devorski, MS, ATC (Fall 2020-present) Co-Advisor - Exercise Physiology PhD Program

Member of graduate thesis committee:

Luk Devorski, MS, ATC 2020 (University of Toledo) Katie Rosenthal, ATC 2020 (University of Toledo – in progress)

Chair of MAT capstone project:

Class of 2021: Ashlie Filemond, Mollie Przybocki, Barbara Umbleby Class of 2021: Aracelis Guzman, Jessica Harris, Brittney Webb

Director of MAT capstone projects/member of project:

Class of 2021: Shannon Carmody, Peter Dawry, Emily Tran Class of 2021: Ai La, Julia Phillips, Zamaris Rivera

UCF College of Medicine FIRE Research Project Advisor:

Joshua Mangels (Fall 2019-Spring 2021)

Chair of honors undergraduate thesis:

Courtney Caputo, BS 2020 (UCF Health Science)

Member of graduate thesis committee:

Kameelah Belgrave, BS, ATC 2020 (UCF Athletic Training) Gabriela Rodriguez (UCF Kinesiology – in progress)

Other undergraduate research mentorship:

Sarah Akbarpour (Spring 2019-present) Selected as Member of 2020-2021 UCF Student Undergraduate Research Council (Council membership includes \$300 research funding) Alexis Wade (Fall 2019-present) Aliyah Gonzalez (Fall 2020-present)

(f) RECENT HONORS AND AWARDS

- 2018 Curry School Foundation Outstanding Graduate Assistant Award, University of Virginia
- 2017 NIH Summer Course Participant for Translational and Clinical Research NIH Clinical Center
- 2017 David H. Perrin Athletic Training & Sports Medicine Award Doctoral Degree Student, University of Virginia Curry School of Education Foundation
- 2016 David F. Cooke Award Winner for outstanding service to athletics, in academics and leadership, University of Virginia Curry School of Education Foundation

Address:	Department of Learning Sciences and Educational Research College of Community Innovation and Education
	University of Central Florida
	PO Box 161250
	Orlando, Florida 32816-1250
Contact:	michele.gill@ucf.edu

EDUCATION

Ph.D.	Educational Psychology Dissertation: <i>Effects of augment</i> <i>epistemological beliefs, and sys</i>	University of Florida ted activation, refutational text, efficac tematic processing on conceptual char	2002 y beliefs, ige.
M.A.E.	Educational PsychologyUniversity of Florida, December1999Thesis: Reconceptualizing the debate on school climate and students' academic motivation and achievement: A multilevel analysis.		
Post-Bacc.	UNM/SFPS Intern Program Post- Baccalaureate Certificate	University of New Mexico program	1992
B.A.	Humanities	New College of USF (now New College of Florida)	1988
	Thesis: <i>Trace-ing the different voices within the space of the current debate on education.</i>		

PROFESSIONAL EXPERIENCE

University of Central Florida (2003 – Present)				
Faculty Ranks				
Professor , Educational Psychology (2017 – Present)				
Associate Professor, Educational Psychology (2009 – Present)				
Assistant Professor, Educational Psychology (2003 – 2009)				
Leadership positions held:				
Director, Coalition for Creating and Sustaining Innovative Schools	2018-present			
Program Coordinator, EdD in Curriculum and Instruction	2017 – present			
Program Coordinator, Executive EdD in Educational Leadership	2017 - 2018			
Program Coordinator, Elementary Education	2016 - 2017			
Co-Founder & Adviser, Applied Learning and Instruction MA program	2008 - present			
Core Ed.D. Curriculum and Instruction Program Faculty	2005 – present			
Program Founder & Coordinator, Lifelong Learning in Education	2014 - 2015			

2010-present				
2010-present				
2011-present				
2002 - 2003				
r on Personnel Studies in Special Education				
2001-2002				
• Assisted with research for the Center on Personnel Studies in Special Education. Supervisors: Dr. Paul Sindelar Principal Investigator and Dr. Anne Bishop Center Director				
1998 - 2002				
ve semesters.				
2002				
TEACH grant through the Department of				

PUBLICATIONS: EDITED BOOK

Fives, H., & Gill, M. G. (Editors, 2015). *International Handbook of Research on Teachers' Beliefs*. New York: Routledge. Google Scholar citation count: 172

Co-created the book outline, sought out authors to write the chapters we designed, and then edited each chapter multiple times until it met our strict criteria for inclusion. It is the only handbook on teacher beliefs of its kind. Editorship listing is alphabetical. *Each editor contributed equally to this book*.

SELECTED PUBLICATIONS: REFEREED JOURNAL ARTICLES

Note. Before 2004, I published under my maiden name of Gregoire.

Galileo School for Gifted Learning (2010 – Present)

- Gill, M. G., Trevors, G., Greene, J. A, Algina, J. (2020, in press). Don't take it personally? The role of personal relevance in conceptual change. *Journal of Experimental Education*. 10.1080/00220973.2020.1754152
- Philp, K. D.*, & Gill, M. G. (2020). Reframing after-school programs as developing youth interest, identity, and social capital. *Policy Insights from the Behavioral and Brain Sciences*, 7(1), 19–26. <u>https://doi.org/10.1177/2372732219892647</u>. Invited article, refereed by editor.

Ulenski, A.*, Gill, M. G., & Kelley, M. (2019). Developing and validating the Elementary Literacy
Coach Self-Efficacy Survey. *The Teacher Educator*, *54*(3), 225-243. DOI: 10.1080/08878730.2019.1590487

- Wilder, O.*, Butler, M. B., Acharya, P., & Gill, M. (2019). Preservice elementary science teacher attitudes matter: A new instrument on positive affect toward science. *Journal of Science Teacher Education*, 30(6), 601-620. DOI: 10.1080/1046560X.2019.1589849
- Herndon, J. S.*, Bembenutty, H., & Gill, M. G. (2015). The role of delay of gratification, substance abuse, and violent behavior on academic achievement of disciplinary alternative middle school students. *Personality and Individual Differences*, 86, 44-49. 5-Year Impact Factor: 2.417. Google Scholar citation count: 19
- Gill, M. G., & Boote, D. N. (2012). Classroom culture, mathematics culture, and the failures of reform: The need for a social view of culture. *Teachers College Record*, 114(12), 1-45.
 5-Year Impact Factor: 1.213. Google Scholar citation count: 29
- Gill, M. G., Ashton, P. T., & Algina, J. (2004). Changing preservice teachers' epistemological beliefs about teaching and learning in mathematics: An intervention study. *Contemporary Educational Psychology*, 29, 164-185. 5-year impact factor: 3.424. Google Scholar citation count: 304
- Gill, M. G., Ashton, P. T., & Algina, J. (2004). Authoritative schools: A test of a model to resolve the school effectiveness debate. *Contemporary Educational Psychology*, 29, 389-409. 5-year impact factor: 3.424. Google Scholar citation count: 66
- Gregoire, M. (2003). Is it a challenge or a threat? A dual-process model of teachers' cognition and appraisal processes during conceptual change. *Educational Psychology Review*, 15, 147-179. 5-year impact factor: 4.374. Google Scholar citation count: 525

DISSERTATIONS CHAIRED

- Dudzinski, Kimberlea. (in process). *The relationship between emotional intelligence, personality traits, and performance on occupational therapy fieldwork*
- Madhubhai, Sejal. (in process). A path analysis of the relation between stress, person-environment fit, and turnover intention of wait staff in Central Florida independent and regional chain restaurants
- Sellars, Krystal. (in process). Strengthening reading pedagogy: Increasing teacher efficacy and reducing feelings of burnout using a beginning teacher mentoring program
- Philp, Katherine. (2019). *How do after-school staff use social networks to support at-risk youth?* A social *capital analysis.* Dr. Philp is the UCF Parramore Education and Innovation District Research Program Manager.
- Cash, Kristine. (2019). The role of teacher perceptions of response to intervention, racial/ethnic attitudes, and self-efficacy in special education referral decisions. Dr. Cash is a school psychologist.
- Hoyt, Erica. (2019). Use of video-enhanced debriefing in clinical nursing skill acquisition: indwelling urinary catheterization as an exemplar. Dr. Hoyt is an Instructor at the University of Central Florida.
- Trenta, Shane. (2017). *Elementary preservice teachers' perceptions of self-efficacy, preparedness, and internship experience*. Dr. Trenta is an Instructor at the University of Central Florida.
- Ulenski, Adam R. (2017, co-chair). Developing and Validating an Elementary Literacy Coach Self-

Efficacy Survey. Dr. Ulenski is an Assistant Professor at Bridgewater State University.

- Chriest, Alexander. (2017). *Ice Hockey Coaches' Perceptions of Coach Education*. Dr. Chriest is a Performance Coach at Johnson & Johnson Human Performance Institute.
- Roy, Melissa. (2016). Site-embedded professional development as a means to increase teachers' sense of efficacy. Lessons from a middle school quasi-experimental study. As a doctoral student, Dr. Roy was selected to attend the highly selective APA Division 15 Graduate Student Seminar at the annual meeting of the American Psychological Association. She is currently a middle school creative writing teacher.
- Collins-McHugh, Doreen (2016). *The effects of a loving-kindness mediation intervention on positive emotions, social connectedness, and behaviors in second and third grade students.* Dr. Collins-McHugh is a professor of psychology at Seminole State College of Florida.
- Kelly, Susan. (2016, co-chair). An examination of the lived curiosity experiences of traditionally aged *freshman pursuing an education degree*. Dr. Kelly is the Associate Director of the UCF Toni Jennings Exceptional Education Institute.
- Sabino, Lisa. (2016). *Practicing teachers' beliefs regarding racially, culturally, ethnically, and linguistically diverse (RCELD) students in a title I secondary-school environment.* Dr. Sabino is a district new teacher coach in the Lake County School District.
- O'Dell, Sean. (2015). *Classroom error climate: An intervention to improve student motivation*. Dr. O'Dell is a principal of a local K-8 private school.
- Booth, William. (2015). Understanding the beliefs and attitudes of mid-career secondary teachers toward teacher evaluation and its effect on their professional practice: A mixed-method phenomenological study. Dr. Booth is a teacher in the Brevard County School District.
- Horn, Beverly S. (2012). *Educating gifted students with Asperger's syndrome: A case study of three students and their classroom experiences.* Dr. Horn was a UCF adjunct professor before her retirement.
- Herndon, J. Stephan. (2011). *The importance of delay of gratification on motivation and impulsivity in terms of the academic achievement of Florida middle-school students in alternative and home-school settings in mathematics.* Dr. Herndon is a teacher in the Lee County School District.
- Clements (Wenzel), Taylar. (2011). Reading comprehension strategies and mathematics problem solving heuristics: An investigative study of the cognitive strategy use of fourth grade students during the interpretation and solving of an open-ended, authentic mathematics problem. Dr. Wenzel's dissertation won the Association of Literacy Educators & Researchers Dissertation Award for 2011. She is currently a Lecturer in the UCF School of Teaching, Learning, & Leadership. As a doctoral student, she was selected to attend the highly selective APA Division 15 Graduate Student Seminar at the annual meeting of the American Psychological Association.
- Hardin. Cristina. (2011). *The born versus made debate: An examination of community college instructors' beliefs and teaching practices*. Dr. Hardin is a tenured professor of English at Valencia College.
- Yao, Yuanming. (2006). Effects of embedded and hypertext annotations on college students' cognitive load and comprehension of online course content. (co-chair with G. Orwig). Dr. Yao is the E-Learning Administrator for Bethune Cookman University.

NSF BIOGRAPHICAL SKETCH

NAME: Hahs-Vaughn, Debbie

ORCID: 0000-0002-1217-5161

POSITION TITLE & INSTITUTION: Professor, University of Central Florida

(a) PROFESSIONAL PREPARATION

INSTITUTION	LOCATION	MAJOR / AREA OF STUDY	DEGREE (if applicable)	YEAR YYYY
Southwest Missouri State University	Springfield, MO	Graphic Design	BFA	1990
Southwest Missouri State University	Springfield, MO	Marketing	MBA	1995
University of Alabama	Tuscaloosa, AL	Educational Research	PHD	2003

(b) APPOINTMENTS

- 2016 present Professor, University of Central Florida, Orlando, FL
- 2016 2018 Assistant Vice Provost for Faculty Excellence, University of Central Florida, Orlando, FL
- 2015 2016 Special Assistant to the Vice Provost for Faculty Excellence, University of Central Florida, Orlando, FL
- 2009 2016 Associate Professor, University of Central Florida, Orlando, FL
- 2003 2009 Assistant Professor, University of Central Florida, Orlando, FL
- 2001 2003 Senior Proposal Development Associate, University of Alabama, Tuscaloosa, AL
- 1999 2001 Manager, Student Support Services TRIO Program, University of Alabama, Tuscaloosa, AL
- 1998 1999 Manager, Graduate Student Services, University of Alabama, Tuscaloosa, AL
- 1996 1998 Director, Educational Services, Alabama Credit Union League, Birmingham, AL

(c) PRODUCTS

Products Most Closely Related to the Proposed Project

- Hahs-Vaughn DL., Lomax R. An introduction to statistical concepts. 4 ed. New York, NY: Routledge/Taylor & Francis; 2020. 1,168p. Available from: https://www.routledge.com/An-Introduction-to-Statistical-Concepts/Hahs-Vaughn-Lomax/p/book/9781138650558
- 2. Hahs-Vaughn D. Applied multivariate statistical concepts. New York, NY: Routledge/Taylor & Francis; 2016. 648p. Available from: https://www.taylorfrancis.com/books/9781315816685
- Hahs-Vaughn D. Propensity score analysis: Fundamentals, developments, and extensions. Pan W, Bai H, editors. New York, NY: Guilford; 2015. Propensity score analysis with complex survey samples; p.236-264. Available from: https://www.guilford.com/books/Propensity-Score-Analysis/Pan-Bai/9781462519491
- Hahs-Vaughn DL, McWayne CM, Bulotsky-Shearer RJ, Wen X, Faria AM. Methodological considerations in using complex survey data: an applied example with the Head Start Family and Child Experiences Survey. Eval Rev. 2011 Jun;35(3):269-303. PubMed PMID: <u>21917712</u>.
- Nye C, Hahs-Vaughn D. Assessing methodological quality of randomized and quasi-experimental trials: a summary of stuttering treatment research. Int J Speech Lang Pathol. 2011 Feb;13(1):49-60. PubMed PMID: <u>21329411</u>.

Other Significant Products, Whether or Not Related to the Proposed Project

- 1. Flippin M, Hahs-Vaughn DL. Parent couples' participation in speech-language therapy for school-age children with autism spectrum disorder in the United States. Autism. 2020 Feb;24(2):321-337. PubMed PMID: <u>31288564</u>.
- Garcia JM, Hahs-Vaughn DL. Health Factors, Sociability, and Academic Outcomes of Typically Developing Youth and Youth with Autism Spectrum Disorder: A Latent Class Analysis Approach. J Autism Dev Disord. 2020 Jul 17;PubMed PMID: <u>32681204</u>.
- 3. Hahs-Vaughn DL., Lomax R. Statistical concepts: A second course. 5 ed. New York, NY: Routledge/Taylor & Francis; 2020. 782p. Available from: https://www.taylorfrancis.com/books/9780429277825
- McWayne C, Hahs-Vaughn D, Cheung K, Wright L. National profiles of school readiness skills for Head Start children: An investigation of stability and change. Early Childhood Research Quarterly. 2012 October; 27(4):668-683. Available from: https://linkinghub.elsevier.com/retrieve/pii/S0885200611000767 DOI: 10.1016/j.ecresq.2011.10.002

BS-1 of 2

 Murza K, Nye C, Schwartz J, Ehren B, Hahs-Vaughn D. A Randomized Controlled Trial of an Inference Generation Strategy Intervention for Adults With High-Functioning Autism Spectrum Disorder. American Journal of Speech-Language Pathology. 2014 August; 23(3):461-473. Available from: http://pubs.asha.org/doi/10.1044/2014_AJSLP-13-0012 DOI: 10.1044/2014_AJSLP-13-0012

(d) SYNERGISTIC ACTIVITIES

- 1. Certified Group Design (Randomized Controlled Trials and Quasi-Experimental Designs) Reviewer for the U.S. Department of Education Institute for Education Sciences (IES) What Works Clearinghouse (WWC)
- 2. Leadership service, American Educational Research Association (AERA) Special Interest Groups
- 3. Faculty Mentor, AERA Faculty Institute for the Teaching of Statistics with Large-Scale Datasets (June 2011). Mentored faculty nationwide who had been accepted, from a competitive selection process, to participate in this institute which was designed to increase the use of large-scale data when teaching quantitative statistics.
- 4. Executive Editor of the Measurement, Statistics, and Research Design section of the Journal of Experimental Education (2009-December 2013)
- 5. Statistical and research methodology dissertation mentor (chair, co-chair, or committee member) to nearly 60 doctoral students in diverse disciplines

CURRICULUM VITA

STEPHEN A. SIVO

Statistics, Measurement, & Research Methodology

Department of Learning Sciences & Educational Research College of Community Innovation & Education University of Central Florida Orlando, Florida 32816-1250 Office: (407) 823-4147 Fax: (407) 823-5144 E-Mail: Stephen.Sivo@ucf.edu

ACADEMIC BACKGROUND

Ph.D. TEXAS A&M UNIVERSITY, College Station, TX 1997

Major: Educational Psychology (with honors) Specialization: Research, Measurement, and Statistics Honors: Kappa Delta Pi

B.A. FRANCISCAN UNIVERSITY, Steubenville, OH

Major: Psychology (with honors)
 Minor: Philosophy (27 credit hours)
 Honors: Alpha Chi National Honor Society,
 National Dean's List,
 National Student Government Award

PROFESSIONAL EXPERIENCE

05/11 – **Professor**, Department of Educational and Human Sciences, College of Education, University of Central Florida, Orlando, FL *Teaching Load 3/3*

- Inaugural Coordinator of the Methodology, Measurement and Analysis Ph.D. program, and Advanced Quantitative Methods Certificate program for PhD students.
- Chairing committees for Tenure/Promotion and Annual Progress
- Served on more than 125 dissertation committees (*position* requirement 2000-2012), chairing fourteen (17), co-chairing nine (17).
- Ad hoc Faculty Steering subcommittee member reviewing and editing UCF Student evaluation of instructor instrument.

	• Taught courses on structural equation modeling, multilevel modeling, Monte Carlo simulation, categorical data analysis, multivariate statistics, survey research, and measurement theory.
	Professor, College of Business Administration, teaching doctoral structural equation modeling and multivariate statistics since 2002.
05/05 05/11	Associate Professor, Department of Educational and Human Sciences, College of Education, University of Central Florida, Orlando, FL <i>Teaching Load 3/3</i>
	 2009/10 Chair of the Structural Equation Modeling conference SIG • Editorial Board for Educational and Psychological Measurement Elected to the Faculty Senate (six consecutive years), Chaired both Graduate Curriculum and Graduate Program Review Committees Taught structural equation modeling, multilevel modeling, multivariate statistics, survey research, and measurement theory.
	Affiliated Professor, College of Business Administration, teaching doctoral structural equation modeling and multivariate statistics since 2002
	Affiliated Professor for the College of Health and Public Affairs teaching the doctoral course Advanced Research Methods II
08/00 - 05/05	 Assistant Professor, Department of Educational Research, Technology, & Leadership, College of Education, University of Central Florida, Orlando, FL <i>Teaching Load 3/3</i> Chaired College Adv. Graduate Admission and Retention Committee Served on College Strategic Planning Committee.
08/96 - 07/00	Assistant Professor, School of Psychology/ Assessment, College of Education & Psychology, James Madison University, Harrisonburg, VA
	 Taught structural equation modeling, multivariate statistics, advanced measurement theory. Psy.D. Faculty for Assessment and Measurement and Clinical
	 Psychology As an assistant professor in the Psy.D. Assessment and Measurement program, I worked with graduate students to serve Student Affairs and five academic departments with program evaluation, assessment, measure construction, analysis, and the review of program objectives. Served on Doctoral and Masters student thesis committees to assist with research methodology and statistical analysis

08/94 - 08/96 Coordinator of Research Design and Statistical Support,

College of Education, Texas A&M University, College Station, TX

• Advised the Faculty, Doctoral Candidates, and Graduate Students regarding statistical analysis, measurement construction, evaluation, and research plan development.

SELECTED HONORS AND AWARDS

2019 Research Incentive Award (RIA) by the University of Central Florida 2016 Scholarship of Teaching & Learning Award (SOTL)h, University of Central Florida

2012 Teaching Incentive Program Award (TIP) by the University of Central Florida 2010 Elected Chair of the Structural Equation Modeling SIG of the American Educational Research Association.

2010 Certificate of Appreciation for Outstanding Service to the Faculty Senate. 2009 Certificate of Appreciation for Outstanding Service to the Faculty Senate. 2009 Elected Co-Chair of the Structural Equation Modeling SIG of the American Educational Research Association.

2005 Research Incentive Award (RIA) by the University of Central Florida 2005 Teaching Incentive Program Award (TIP) by the University of Central Florida 2002 Certificate for Outstanding Service, Southwestern Educational Research Association

2001 Certificate for Outstanding Service, Southwestern Educational Research Association

RESEARCH AND CREATIVE ACTIVITIES

SELECTED REFEREED BOOKS

Fiedler, B.A., Wan, T.T.H., & Sivo, S. (2014). Inter-Professional Hospital Quality Impact of Biomedical Engineering: Structural Equation Modeling. Lap Lambert Publishing. ISBN: 978-3-8484-2911-0

SELECTED RECENT JOURNAL PUBLICATIONS (Refereed)

- *Siegal, D., *Acharya, P., & **Sivo, S.** (2018). Extending the Technology Acceptance Model to improve usage & decrease resistance towards a new technology by faculty in higher education. *Journal of Technology Studies*.
- *Richard, B., Sivo, S.A., Orlowski, M., Ford, R.C., Murphy, J., Boote, D. & Witta, E. (2018). Online focus groups: A valuable alternative for hospitality research? *International Journal of Contemporary Hospitality Management.*

- Katt, J., Sivo, S., Neville Miller, A., Brown, Scott, T.A. & Neel, S. (2018). Refinement of the Classroom Citizenship Behavior Scale. *Communication Research Reports*, 1-10. https://doi.org/10.1080/08824096.2018.1467832
- *Acquaye, H.E., Sivo, S.A., & Jones K.D. (2018). Religious commitment's moderating effect on refugee trauma and growth. *Counseling and Values*, 63, 57-75.
- Sivo, S., *Ku, C.C., & *Acharya, P. (2018). Extending the technology acceptance model using perceived user resources in higher education web-based online learning courses. Australasian Journal of Educational Technology, 34(4), 72-91

SELECTED GRANTS

Thomas O'Neal (Principal Investigator); Co-PI: **Stephen Sivo**, Vernet Lasrado. Agency: U.S. Economic Development Administration. Amount: \$883,608 Grant dates: 2016-2019 Title: *PIER Dataset Development Project*.

Bonnie Swan (Principal Investigator); Co-PI: **Stephen Sivo**, Debbie Hahs-Vaughn, JoAnn Smith, Janan Smither, and M.H. Clark. Agency: U.S. Department of Labor: Trade Adjustment Assistance Community College and Career Training. Amount: \$676,438 Grant dates: 2014-2019

Title: College of Central Florida Third Party TAACCCT Evaluation Project.

SELECTED TEACHING EXPERIENCE

University of Central Florida

- MAN 7939 Structural Equation Modeling
- EDF 7415 Latent Variable Modeling
- EDF 7474 Multilevel Analysis
- EDF 7488 Monte Carlo Simulation Research in Education
- EDF 7410 Application of Nonparametric and Categorical Data Analysis in Education
- MAR 7939 Multivariate Analysis for Marketing Research
- EDF 7406 Multivariate Statistics in Education
- EDF 7463 Analysis of Survey, Record, and other Qualitative Data
- EDF 7403 Quantitative Foundations of Educational Research
- PAF 7806 Advanced Research Methods II for the College of Health and Public Affairs

Disserations

I have chaired (17) dissertation committees.

I have co-chaired (17) Dissertation committees.

I have served on more than (128) Dissertation committees (providing statistical/research support.

I have served on three (4) Master's thesis committees.

APPENDIX G – LETTERS OF SUPPORT

UCF College of Health Professions and Sciences UCF College of Community Innovation and Education American College of Sports Medicine National Strength and Conditioning Association International Society of Sports Nutrition The Center for Applied Health Sciences Digital Aurora



UNIVERSITY OF CENTRAL FLORIDA

Office of the Dean College of Health Professions and Sciences 12805 Pegasus Drive Orlando, FL 32816-2200

October 20, 2020

Jeffrey Stout, PhD, Director School of Physical Therapy & Kinesiology University of Central Florida Orlando, FL 32816

Dear Dr. Stout:

The College of Health Professions and Sciences' mission is to improve health through integrative and inclusive education, research, clinical practice, and service. The PhD program in Kinesiology contributes to each element of this mission. Additionally, the proposed PhD program embodies the college's vision to be a dynamic and innovative leader in health education, research, clinical practice, and service.

The resources necessary to deliver this program are already in place due to the fact that it currently exists as a track within the education PhD program at the University of Central Florida. The education PhD, although currently housed in the College of Community Innovation and Education, is wholly financed and administered by the Kinesiology faculty in the College of Health Professions and Sciences. This proposal seeks approval to deliver this program as a unique PhD in Kinesiology program in the College of Health Professions and Sciences.

The quality and reputation of this program has already been established over the years. In fact, in the most recent national ranking of PhD programs in Kinesiology, UCF's program ranked #9 in the US when adjusted for faculty size. This is the highest ranked program in the state of Florida.

The College of Health Professions and Sciences is committed to continue to fund the PhD in Kinesiology program and actively engage in activities to grow the program's national reputation. This program is critical to the growth and development of the new College of Health Professions and Sciences.

I would be glad to answer any questions or provide additional information regarding this program.

Sincerely,

Christopher D. Ingersoll Founding Dean

Phone: 407.823.6424 · Email: Christopher.Ingersoll@ucf.edu · Web: healthprofessions.ucf.edu

Solution and Education

UNIVERSITY OF CENTRAL FLORIDA

13 July 2020

Dear Director Stout:

It is an honor to write an endorsement of the proposal for a Ph.D. in Kinesiology, CIP code 31.0505, at University of Central Florida. This degree proposal, which combines a strong emphasis on fundamental research as well as clinical application, will contribute powerful additions to the STEM strength of the College of Health Professions and Sciences (CHPS) and across the University of Central Florida through academic foci in anatomy, physiology, biochemistry, biophysics, and it will promote interdisciplinary applications in exercise and therapeutic rehabilitation.

The proposed degree is an outgrowth of a successful Exercise Physiology PhD in Education, developed when a portion of the faculty in the current School of Kinesiology and Physical Therapy were members of the faculty of the College of Education and Human Performance. That program, which admits approximately 3 students annually, has enjoyed a 100% university employment rate among its program graduates since 2012. It is a rigorous, demanding, high-quality degree that has earned high national ratings. A shift of the program that will (1) identify it more closely with other STEM degrees, (2) assist prospective students in locating it within the College of Health Professions and Sciences (CHPS), and (3) align the academic strengths of myriad faculty within CHPS with the PhD, is likely to increase the ability of faculty to recruit the highest level of students to the program, and to continue to secure external funds to support the growth and sustainability of the doctoral program.

Given the strong scholarship, mentorship practices, and collegiality of the faculty in the School of Kinesiology and Physical Therapy, I am confident that this is a PhD program that will succeed under a new title and CIP code. I will be eager to watch it grow in strength and prominence at the University of Central Florida, In Florida, and across the United States in the years to come.

I am eager to learn about the progress of this extremely positive, carefully developed proposal.

Sincerely,

Pamela S. Carroll

Pamela S. Carroll Dean and Mildred W. Coyle Eminent Chair and Scholar of Education College of Community Innovation and Education University of Central Florida

Founded in 1954 AMERICAN COLLEGE of SPORTS MEDICINE

NICole R. Keith, Ph.D., FACSM Presidenti IUPUI School of Health and Human Sciences Indiana University Center for Aging Research Regenstrief Institute Indianapolis, Indiana L. Bruce Gladden, Ph.D., FACSM President-elect School of Kinesiology Auburn University Auburn Kitabarna

WIIIIam (BIII) E. Kraus, M.D., FACSM Immediate Past President Duke University Durham, North Carolina Anastasta N. Fischer, M.D., FACSM First Vice President Nationwide Children's Hospital and The Ohio State University College of Medicine Division of Sports Medicine Columbus, Chin

Kevin R. Vincent, M.D., Ph.D., FACSM, CAQSM First Vice President University of Florida Division of Physical Medicine and Rehabilitation Gainesville, Florida

Heather Chambiliss, Ph.D., FACSM Second Vice President St. Jude Children's Research Hospital Medical Content Outreach Memphis, Tennessee

Karin Allor Pfeiffer, Ph.D., FACSM Second Vice President Michigan State University Department of Kinesiology East Lansing, Michigan Mindy Millard-Stafford, Ph.D., FACSM Treasurer Georgia Institute of Technology

Biological Sciences Atlanta, Georgia Kristin C. Belleson Chief Executive Officer ACSM National Center Indianapolis, Indiana



Street Address: 401 W. Michigan St. Indianapolis, IN, 46202-3233 USA

Mailing Address: P.O. Box 1440 Indianapolis, Indiana, 46206-1440 USA

Telephone: (317) 637-9200 FAX: (317) 634-7817 Website: www.acsm.org Federal I.D. Number: 23-6390952 Mission Statement: The American College of Sports Medicine advances and integrates scientific research to provide educational and practical applications of exercise science and sports medicine.

July 14, 2020 Jeffrey R. Stout, PhD Director, School of Kinesiology and Physical Therapy College of Health Professions and Sciences University of Central Florida 12494 University Blvd., ED320M Orlando, Florida 32816-1250

RE: Proposed Ph.D. Program at UCF

Dear Dr. Stout,

I have reviewed the proposal for the Kinesiology Ph.D. program at the University of Central Florida. This letter is to express my wholehearted support for the proposal. It is my understanding that the proposed Kinesiology Ph.D. program represents the continuation of the Education Ph.D. - Exercise Physiology track. I understand the reason for the proposed change is because the administrating unit of the Exercise Physiology track was relocated to the newly organized School of Kinesiology and Physical Therapy in the new College of Health Professions and Sciences. To me, this creation of the new School, which includes the BS, MS programs in Kinesiology, MAT in Athletic Training, and the DPT in Physical Therapy, provides opportunity to leverage the diverse research and education into this new Ph.D. program.

Interestingly, the proposed Classification of Instructional Programs (CIP) code as defined by the National Center for Education Statistics (NCES) appears to reflect the education and research efforts of all faculty in the new School of Kinesiology and Physical Therapy. Specifically, the new CIP definition "is a scientific program that focuses on the anatomy, physiology, biochemistry, and biophysics of human movement, and applications to exercise and therapeutic rehabilitation." The new School also houses the Institute of Exercise Physiology and Rehabilitation Science, which is a perfect match for the Proposed Ph.D. program.

In my review, I see that the existing Education Ph.D. track Exercise Physiology has graduated 22 students since the Fall of 2011 with 100% employment in faculty, post-doc, and industry positions. This impressive employment success clearly demonstrates that the infrastructure is already in place to ensure that students entering the new Ph.D. program will be successful. Finally, ACSM has enjoyed having UCF students present their research at our regional and national conferences. I believe the newly proposed Ph.D. program will reinforce what has been accomplished and, in my opinion, elevate the education and research that will benefit our profession and society as a whole.

Sincerely,

Milole R. Kett

NiCole R. Keith, Ph.D., FACSM Professor, IUPUI Department of Kinesiology Associate Dean, IUPUI School of Health and Human Sciences Research Scientist, IU Center for Aging Research and Regenstrief Institute

2020-2021 President, American College of Sports Medicine

Insert text here



July 14, 2020

Jeffrey R. Stout, PhD Director, School of Kinesiology and Physical Therapy College of Health Professions and Sciences University of Central Florida 12494 University Blvd., ED320M Orlando, Florida 32816-1250

RE: Purposed Ph.D. Program at UCF

Dear Dr. Stout,

I was recently advised on the creation of the Ph.D. program proposal in the School of Kinesiology and Physical Therapy. Based on what I have learned, the Kinesiology program has moved to a new college. However, the Exercise Physiology Track they managed was part of the Ph.D. in Education, which has remained in another college. It appears that the proposed Kinesiology Ph.D. program represents the continuation of the Education Ph.D.-Exercise Physiology track but within the new College of Health Professions and Sciences. The Kinesiology program combined with Athletic Training and Physical Therapy is unique in the USA. The newly proposed Ph.D. program is recommending CIP Code 31.0505 (Exercise Science and Kinesiology), which in my opinion best represents the education and research conducted by the faculty in the new School of Kinesiology and Physical Therapy. The CIP definition for the Exercise Science and Kinesiology is "a scientific program that focuses on the anatomy, physiology, biochemistry, and biophysics of human movement, and applications to exercise and therapeutic rehabilitation." It is also my understanding that a Ph.D. program with this CIP code will be the only one in the state of Florida.

The purpose of this new Ph.D. program is to develop independent teacher-scholars to advance the broad discipline of kinesiology, which underscores nearly all health professions, and especially those within the new School (kinesiology, physical therapy, and athletic training). Within this context, graduates of UCF's Ph.D. program will contribute to the scientific body of research, be skilled in delivering STEM/health-related education, and will

make impactful contributions to professional organizations like the organization that I represent, the National Strength and Conditioning Association.

I am a strong supporter of the proposed Ph.D. program at the University of Central Florida. I firmly believe that this program will shape graduates into active and energetic leaders. The analytical skills that will be instilled in these diverse groups of young men and women will contribute to the overall scientific body of knowledge and education in physical medicine locally, statewide, and nationally.

In closing, I support this proposed Ph.D. program, and the NSCA looks forward to continuing to collaborate and benefit from the students and research produced by the faculty in the School of Kinesiology and Physical Therapy at the University of Central Florida. As you are aware, UCF students have been leaders within the NSCA, presenting their research, successfully applying for grants, and winning national awards and scholarships at our national conferences. I believe the newly proposed Ph.D. program will reinforce what has been accomplished and, in my opinion, elevate the education and research that will benefit society as a whole.

Sincerely,

M. nuris Juplett

N. Travis Triplett, PhD President, National Strength and Conditioning Association Professor of Exercise Science, Appalachian State University (828) 262-7148 triplttnt@appstate.edu

July 13, 2020

Jose Antonio PhD – Chief Executive Officer Shawn Arent PhD – President (2017-2020) The International Society of Sports Nutrition 4511 NW 7th Street Deerfield Beach FL 33442 www.issn.net

To: Jeffrey R. Stout, PhD Director, School of Kinesiology and Physical Therapy College of Health Professions and Sciences University of Central Florida 12494 University Blvd., ED320M Orlando, Florida 32816-1250

RE: Purposed Ph.D. Program at UCF

Dear Dr. Stout,

Please accept this letter in support of the proposed Ph.D. program in the School of Kinesiology and Physical Therapy at UCF. Based on what we read, UCF has created two new colleges. Kinesiology from the College of Education joined the new College of Health Professions and Sciences. For the past ten years, the Kinesiology program has been running the Exercise Physiology Track from the Ph.D. in Education with great success. The Ph.D. Exercise Physiology Track was ranked in the Top 10 relative to faculty size by the National Academy of Kinesiology. The students from the UCF program have presented over the past ten years at our national conference and have represented the program extremely well. It is our understanding that the proposed Kinesiology Ph.D. program represents the continuation of the Education Ph.D. - Exercise Physiology track. Currently, the Ph.D. track is in a different college; thus, we cannot imagine that it is sustainable or in the best interests of interested students. Therefore, we offer our support for the new Ph.D. in the School of Kinesiology and Physical Therapy. We believe allowing them to run their Ph.D. program will benefit the students, college, university, and society as a whole. The research they have published and the outstanding students they have graduated is a testament to a great program at the University of Central Florida.

Sincerely,

Jose Antonio, PhD Shawn M. Arent, PhD CEO, International Society of Sports Nutrition President, International Society of Sports Nutrition



Jeffrey R. Stout, Ph.D. Director, School of Kinesiology and Physical Therapy College of Health Professions and Sciences University of Central Florida 12494 University Blvd., ED320M Orlando, Florida 32816-1250

RE: Purposed Ph.D. Program at UCF

Dear Dr. Stout:

As you know, I am the CEO of The Center for Applied Health Sciences (CAHS), an industry-leading multi-disciplinary Contract Research Organization capable of designing and executing phase I-IV clinical trials within the dietary supplement, pharmaceutical, functional food, and medical food industries. When presented with your new Kinesiology Ph.D. proposal, I was very interested in learning more about it because these are the kind of programs we look to when hiring newly minted Ph.D. students.

It appears that the proposed Kinesiology Ph.D. program represents the continuation of the Education Ph.D.- Exercise Physiology track but within the new College of Health Professions and Sciences. To my knowledge, the proposed Kinesiology program merging with Athletic Training and Physical Therapy is quite unique in the United States. The newly proposed Ph.D. program will build upon the highly ranked Ph.D. Exercise Physiology track and represent the faculty's education and research in the new School of Kinesiology and Physical Therapy. I am exceptionally excited about this because we have already hired one of your former Ph.D.-Exercise Physiology track students, and he has been outstanding at CAHS.

As CAHS looks to expand in the near future, your proposed Kinesiology Ph.D. program at the University of Central Florida fosters a curriculum and research engagement consistent with potential future CAHS employees. The core curriculum and elective course offerings would facilitate knowledge that could be applied to CAHS-related functions, including research methods and clinical trials, substantial experiences conducting human clinical trials, and an understanding of food, dietary supplements, and drug interactions with exercise on health and performance. Furthermore, the dedication to providing students with a rich research background, such as examining unique interventions and how they elicit multifaceted physiological responses and human movement, also creates the potential for your students to be competitive future hires at CAHS.

6570 Seville Drive | Canfield, OH 44406 | office 330.926.6927 | direct 330.328.1870 | www.appliedhealthsciences.org



We are excited about the possibility of reviewing potential future hires from the Kinesiology Ph.D. program at the University of Central Florida. Please let us know ASAP when this program is underway!

Sincerely,

Tim Ziegenfuss, Ph.D., FISSN, CSCS Chief Scientific Officer Center for Applied Health Sciences

L. Colby Mangum, PhD, LAT, ATC Assistant Professor, Director of AT Research Lab Athletic Training Program University of Central Florida 4364 Scorpius Street Orlando, FL 32816-2205

RE: PhD, non-academic position

Dear Dr. Mangum:

Following our conversation about the proposed Kinesiology PhD program at the University of Central Florida and how this could support potential career options outside of the academic setting, I am providing you with a summary of my current role as the Chief Scientific Officer at Digital Aurora, Inc. Digital Aurora is an independent research and analysis firm specializing in informatics and information technologies emerging at the intersection of healthcare and life sciences. Digital Aurora has worked with healthcare organizations, biopharmaceutical companies, and even digital technology start-ups to support real world evidence generation and clinical trial innovation.

DIGITAL

AURORA

In my current role, I work with a number of clients across healthcare to develop and deliver our research series in support of clients' data and research strategies. Areas often covered in our research include methodological approaches, data analytics, emerging trends and technologies, regulatory considerations, and academic literature.

We have also supported the development of real world evidence enterprises though governance frameworks and creating operating models in support of establishing evidence-generating research networks. Our work supporting real world data and evidence has been used to develop precision medicine applications and demonstrate value of care delivery. Additionally, our research has been leveraged to support protocol development and methodological designs for clinical research.

I have found that my doctoral degree in kinesiology provided a firm foundation in a number of key areas that have translated outside of a traditional academic position, including epidemiology, statistics, health outcomes, patient-generated health data, therapeutic interventions, and clinical research. This foundation has enabled me to interface effectively with scientific leaders across disciplines and contribute to clients' translational science efforts. Additionally, kinesiology students may potentially add value across healthcare as content experts to support data and research strategies. Some therapeutic areas of interest to which kinesiology students could contribute within translational science efforts may include oncology, cardiovascular, respiratory, neurology, and immunology-related conditions.

Sincerely,

ALL 15/15

Mark A. Sutherlin, PhD, ATC Chief Scientific Officer Digital Aurora, Inc.

OFFICE

P.O. Box 648 Manchester, VT 05254

PHONE 802 491 7950

EMAIL

mark@digitalaurora.com

WEB

https://digitalaurora.com

APPENDIX H – ADDITIONAL SUPPORTING MATERIAL

Library Report

Specific Instrumentation Currently in Place

Examples of Related Job Postings

MEMO

To: Dr. Christopher D. Ingersoll, College of Health Professions and Sciences, Dean
 Dr. Jeffrey Stout, School of Kinesiology and Physical Therapy, Director
 Dr. David Fukuda, Division of Kinesiology, College of Health Professions and Sciences, Chair
 Ms. Ying Zhang Interim Associate Director, Collection Services & Resource Management
 Ms. Sara Duff, Acquisitions Librarian
 Mr. Frank Allen, Interim Director of Libraries
 Dr. Devon Jensen, Associate Dean, College of Graduate Studies
 Ms. Emily Stettner, Assistant Director, Graduate Curriculum

From: Terrie Sypolt, Subject Librarian for Kinesiology, Physical Therapy and Athletic Training

Subject: Kinesiology, PhD Library Analysis

Date: September 9, 2020

Peer Comparisons

When reviewing library support (databases, journal titles, and books) for the proposed Kinesiology PhD, David Fukuda, Division of Kinesiology, College of Health Professions and Sciences, Chair and I selected the following institutions for comparison:

- Florida State University, Exercise Physiology, PhD; Nutrition, Food & Exercise Sciences, PhD (#39)
- Pennsylvania State University, Kinesiology, PhD (#9)
- University of Florida, Applied Physiology & Kinesiology, PhD (#4)
- University of South Carolina, Exercise Science, Applied Physiology track, PhD; Exercise Science, Health Aspects of Physical Activity track, Exercise Science, Rehabilitation Sciences track, PhD (#1)
- University of Southern California, Biokinesiology, PhD (#15)
- University of Virginia, Education, Kinesiology for Individuals with Disabilities, PhD (#9)

Numbers behind the institutions indicate National Academy of Kinesiology (NAK) rankings from 2015. UCF is ranked #6. institutions are all ranked and have curriculum similar to the one that UCF is proposing although the program emphasis may be different.

Summary and Projected Costs for New Library Resources

Since the University of Central Florida offers a Ph.D. degree in Education, Exercise Physiology track, we have acquired many resources that will also support this new Kinesiology PhD. The UCF Libraries' current journal and database holdings will meet the needs for the proposed doctoral program, and therefore no immediate subscription costs are requested (see full analysis below). The only databases we lack that others have is Sports Medicine & Physical Education Index. While the Sports Medicine & Physical Education Index would be beneficial, it is not crucial to this program since it is largely a physical education index. Access Physiotherapy is held by only one institution and therefore not deemed necessary for this proposed program. While UCF would benefit from having the full-text version of SportDiscus, we do have the indexing that allows us access to the citations. That suffices since we have many of the sources full-text available in other databases or from publishers. Heath Source will be dropped January, 2021 because of budget cuts. Three of the peer institutions have it and three do not, but they are all facing budget cuts also. UCF has the resources needed to support the proposed program without HealthSource.

UCF has all of the journals listed but 2. Only the University of Florida has more. UF lacks only one journal title. (See analysis below). *Sports Medicine* is held by only 3 of the 6 peer institutions. UCF has access to the open articles in this journal (as do 3 of the peer institutions) and can purchase other needed articles from the publisher at \$45.00 per article. We don't have money to purchase SportDiscus full-text where Advances in Exercise and Sports Physiology articles are available, but articles are available for purchase at \$21.00 per article from the publisher. Should the demands for either one of these titles warrant purchase as the program progresses, the department would be expected to supply the recurring funds to purchase it.

Expected budget cuts may reduce our holdings starting from January 1, 2021. For example, unbundling the T&F package to only subscribing to a list of essential journals that are heavily used and identified as critical to Kinesiology would reduce journal holdings. Articles from dropped titles may be available via interlibrary loan (ILL) in accordance to copyright law. In case ILL cannot obtain them due to copyright restrictions, articles could be available from the publisher for a fee that will be paid by the student or faculty member needing the material. The same resources, and process, will be needed not only for the newly proposed degree, but also for all existing ones. Most institutions will be undergoing the same process, so journal cuts will occur at most, if not all, academic institutions.

In the event any new key journal or database becomes critical for the Kinesiology PhD in the future, additional recurring funding will need to be provided to the Libraries to add these resources. Also note that in the unfortunate event library budget shortfalls occur, some existing resource subscriptions may be cut or scaled back. Book comparisons with the peer institutions chosen show that UCF compares favorably with them and has the books needed to support the doctoral program in the area of Kinesiology. (See analysis below). UCF has the eBook databases it needs to support the proposed Kinesiology PhD program also.

Our Reference books compare favorably to the chosen peer institutions. The only reference book title we lack is the Gale Encyclopedia of Fitness which is not essential for the proposed new program. We will request \$600.00 per year for the next 5 years in case new reference books are needed. Money will be used to supplement the general book collection if it is not needed for reference books.

Projected costs needed to acquire library materials to support the new Kinesiology PhD program:

	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
Databases	0	0	0	0	0	0
Journals	0	0	0	0	0	0
Books	0	0	0	0	0	0
Reference Books	600	600	600	600	600	600
Total	600	600	600	600	600	600

Recurring Subscriptions Supporting the Kinesiology PhD Analysis:

Databases

Databases	UCF	UF	FSU	U So Car	UVA	Penn State	USC
PubMed	x	х	х	х	х	х	х
Ovid Medline/Medline	x	х	х	х	х	х	х
Academic Search Premier/Complete	x	х	х	х	х	х	
Access Physiotherapy							х
APA PsycInfo	х	х	х	х	х	х	х
BioMed Central (open access)	х	х	х	х	х	х	х
BIOSIS Citation Index/Biological Abstracts	x	х	х	х	х	х	х
CINAHL Plus with Full Text/Complete	x	х	х	х	х	х	х
Cochrane Library	x	х	х	х		х	х
Compendex (Ei Engineering Village)	x	х	х	x	х	х	х

Databases	UCF	UF	FSU	U So Car	UVA	Penn State	USC
Education Database (ProQuest)	x	х				х	
Education Source/Education Research	x	х	х	х	х		х
Complete/Education Full Text							
ERIC (EBSCOhost)	x	х	х	х	х	х	х
Google Scholar	x	х	х	х	х	х	х
Health & Wellness Resource Center	x	х	х				х
Health Source: Nursing Academic Edition	Will be dropped	x		x	x		
ICI: Journal Citation Index	v	v	×	x	v	v	v
I WW Health Library: Medical Education	x	x	X	~	~	~	x
ProQuest Dissertations & Theses Global	x	x	x	x	x	x	x
Science Direct	x	x	x	x	x	x	x
SportDiscus with full-text	Index only	x	x	x	x	x	x
SportRxiv (Open Access Repository for Sport, Exercise & Health Research) https://www.sportrxiv.org/	x	x	x	x	x	x	x
Sports Medicine & Education Index				х	х		х
(formerly Physical Education Index)							
Web of Science	x	х	x	х	х	x	х
Wiley Online Library	x	х	x	х	х	x	х

Database Analysis: UCF has all but 3 of the databases listed. One of those, Access Physiotherapy is held by only USC. A second one is Health Source: Nursing Academic Edition which we have until January, 2021. This will be dropped due to library budget cuts. UF, the University of South Carolina, and the University of Virginia have it while Florida State, Penn State and USC do not. UCF has enough other indexes to cover the subject matter. The other is Sports Medicine & Education Index. South Carolina, Virginia and USC have it. Florida, Florida State and Penn State do not. This was formerly titled The Physical Education Index and that is still largely its focus. Since Kinesiology largely uses PubMed, Medline, Science Direct, SportDiscus, and Web of Science, UCF does not necessarily need Sports Medicine & Education Index. While it would be nice to have SportDiscus with full text like the peer institutions, UCF does have access to the complete index citations and that is adequate to support the newly proposed Kinesiology PhD program.

Journals

Journal Title	UCF	UF	FSU	U So Car	UVA	Penn State	USC
ACSM's Health and Fitness Journal	х	х	х		х	х	х
Adapted Physical Activity Quarterly	х	х	х	х	х	х	х
Advances in Exercise and Sports		x	x	x	х	х	х
Physiology (Japan) Available via							
SportDiscus full-text only							
Advances in Physiology Education	х	x	x	x	х	х	х
American Journal of Clinical Nutrition	х	x	x	x	х	х	х
American Journal of Physical Medicine and	х	x	х	x	х	х	х
Rehabilitation							
American Journal of Physical Medicine and	х	x	x	x	х		х
Rehabilitation							
American Journal of Public Health	х	x	x	x	х	х	х
American Journal of Sports Medicine	х	x		x	х	х	х
Amino Acids	х	x	x	x	х	х	х
Annals of Physical and Rehabilitation	х	x	x	x	х	х	x
Medicine (Clinical Key, Science Direct)							
Applied Physiology, Nutrition &	х	x	x	x	х		х
Metabolism							
Archives of Physical Medicine and	х	х	х	x	х	х	х
Rehabilitation (Clinical Key; on PT list to							
save)							
Biology of Sport (open access)	х	х	x	x	х	х	х
British Journal of Sports Medicine	х	х	х	x	х	х	х
Clinical Biomechanics (Clinical Key, Science	х	х	x	x	х	х	х
Direct)							
Clinical Journal of Sport Medicine (LWW	х	х	х		х	х	х
high impact, LWW Nursing)							
Clinical Kinesiology (Gale, pub site)	х	х	x	x	х	х	х
Clinical Orthopaedics and Related	х	x	x	x	x	х	х
Research (PMC 1 yr delay)							
Clinical Physiology & Functional Imaging	х	х	x	x	х	х	х
Clinical Rehabilitation (SAGE)	х	х	х	x	х	х	х

Journal Title	UCF	UF	FSU	U So Car	UVA	Penn State	USC
Clinics in Sports Medicine (Clinical Key,	х	х	х	х	х	х	х
Science Direct)							
Current Reviews in Musculoskeletal	х	х	х	x	х	х	х
Medicine (PMC free)							
Current Sports Medicine Reports	х	х	х	х	х	х	х
European Journal of Applied Physiology	х	х	х	х	х	х	х
European Journal of Sport Science	х	х	х	х	х		х
Exercise & Sport Sciences Reviews	х	х	х	х	x	х	х
Exercise Immunology Review	х	х	х	х	x	х	х
Experimental Gerontology	х	х	х	х	х	х	х
Food and Nutrition Research (DOAJ)	х	х	х	х	х	х	х
Gait & Posture (Phy Ther saved)	х	х	х	х	х	х	х
Human Movement Science	х	х		х	х	х	х
International Journal of Athletic Training &	х	х	х	x	х		х
Therapy (HK)							
International Journal of Performance	х	х		x	х		х
Analysis in Sport							
International Journal of Sport Nutrition &	х	х	х	х	х	х	х
Exercise Metabolism							
International Journal of Sports Medicine	х	х	х	х	х	х	х
International Journal of Sports Physiology	х	х	х	х	х	х	х
& Performance							
International Journal of Sports Science &	х	х	х	х	х	х	х
Coaching							
JAMA: Journal of the American Medical	х	х	х	x	х	х	х
Association							
Journal of Aging and Physical Activity	х	х	x	х	х	х	х
Journal of Applied Biomechanics (HK)	х	х	х	х	х	х	х
Journal of Applied Physiology	х	х	х	х	х	х	х
Journal of Athletic Training (AT saved)	х	х	х	х	х	х	х
Journal of Dietary Supplements	х	х	х	х			х

Journal Title	UCF	UF	FSU	U So Car	UVA	Penn State	USC
Journal of Electromyography and	х	x	х	х	х	х	х
Kinesiology							
Journal of Exercise Science and Fitness	х	х	х	х	х	х	х
Journal of Motor Behavior (T&F)	х	х	х	х	х	х	х
Journal of Orthopaedic and Sports Physical	х	x	х	х	х	х	х
Therapy (Pub site)							
Journal of Science & Medicine in Sport	х	х	х	х	х	х	х
Journal of Sport & Exercise Psychology	х	x	х	х	х	х	х
(НК)							
Journal of Sport Rehabilitation (HK)	х	х	х	х	х	х	х
Journal of Sports Medicine & Physical	Print	x		Print			
Fitness							
Journal of Sports Sciences	х	х	х	х	х	х	х
Journal of Strength & Conditioning	х	x		х	х	х	х
Research							
Knee Surgery, Sports Traumatology,	х	x	х	х	х	х	х
Arthroscopy							
Measurement in Physical Education and	х	х	х	x	х	х	х
Exercise Science							
Medicine & Science in Sports & Exercise	х	х	х	х	х	х	х
Motor Control	х	х		х	х	х	х
Muscle & Nerve	х	х	х	х	х	х	х
Pediatric Exercise Science	х	х	х	х	х	х	х
Perceptual & Motor Skills	х	х	х	х	х	х	х
Psychology of Sport and Exercise (SciDir)	х	х	х	х	х	х	х
Research in Sports Medicine	х	х	х	х	х	х	х
Research Quarterly for Exercise and Sport	х	х		х	х	х	х
Scandinavian Journal of Medicine &	х	x	х	х	х	х	х
Science in Sports							
Science and Sports	х	x		х	х	х	x
Sports Biomechanics	х	x	х	x	х	х	х
Sports Health	x	x	x	x	x	x	x

Journal Title	UCF	UF	FSU	U So Car	UVA	Penn State	USC
Sports Medicine	Open only	Open only	Open only	Open only	х	х	х

Journal Analysis: UCF lacks 2 of the above journal titles. UF lacks 1 of the above journal titles. FSU lacks 8 of the listed journal titles. The University of South Carolina lacks 3 journal titles. The University of Virginia lacks 2 of the journal titles. Penn State lacks 7 of the journal titles. USC lacks 1 of the listed journal titles.

UCF has all but 2 of the listed journals: Advances in Exercise and Sports Physiology and Sports Medicine. Advances in Exercise and Sports Physiology is published in Japan and is only available through SportDiscus with full text subscription which we do not have. That subscription would be over \$4,800 and we don't have that money available now. Individual articles from this journal, if needed, can be purchase for \$21.00 at this source http://mol.medicalonline.jp/en/archive/select?jo=dt4adexp. Only open items from the hybrid Sports Medicine are available at UCF, Florida, Florida State and the University of South Carolina. The University of Virginia, Penn State, and USC have full access to Sports Medicine. A Sports Medicine subscription costs \$2,519.00 annually if the program wishes to purchase the title. Should the demands for either of these titles warrant purchase, the department would be expected to supply the funds to it/them.

Since UCF has almost all of the listed journals, we have the journal support needed for the newly proposed Kinesiology PhD.

Subject Heading (LC/Medical)	UCF	UF	FSU	U So Car	UVA	Penn State	USC
Athletes Nutrition	112	71	53	83	42	69	46
Cardiovascular system Physiology	14	18	6	26	158	17	33
Chronic diseases Exercise therapy	4	2	1	10	16	4	9
Endurance training (See also physical	11	8	4	0	12	5	5
endurance)							
Exercise	538	439	359	338	424	684	448
Exercise Physiological aspects (Used for	277	215	167	133	115	105	108
Exercise physiology)							
Human locomotion (Used for movement	47	49	61	37	40	32	28
science)							
Human mechanics (Used for movement	223	227	220	104	139	95	106
science)							
Kinesiology	69	122	27	71	57	59	28
Kinesiology Research Methodology	4	1	1	12	2	1	1
Kinesiology Statistical Methods	3	2	0	2	6	2	2

Books > 2000

Subject Heading (LC/Medical)	UCF	UF	FSU	U So Car	UVA	Penn State	USC
Metabolism Regulation	17	20	10	16	9	17	18
Muscle strength (Used for strength	112	200	73	81	50	55	77
training)							
Physical endurance (See also endurance	15	8	4	0	7	19	0
training)							
Physical fitness	719	579	412	182	306	463	533
Physical fitness for people with disabilities	5	4	3	1	10	4	2
Resistance training (Use for strength	8	12	8	0	0	2	4
training)							
Sports sciences (Used for sport science)	123	58	23	35	43	87	342
Weight training (Used for strength	101	87	47	76	38	51	55
training)							
Total	2402	2121	1479	1207	1474	1771	1845
	1.00	.88	.62	.50	.61	.74	.77

Books: UCF has more books, in the subjects used, than any of the peer institutions. Florida has 88% of the total of UCF. Southern California has 77%. Penn State 74%. Florida State has 62%. Virginia 61%. South Carolina has 50%. Therefore, UCF certainly has the books needed to support the newly proposed PhD in Kinesiology.

EBook Platforms

Vendor	UCF	Florida	FSU	S Car	UVA	Penn State	USC
Access Medicine	х	х	х	х	х	х	х
Books@Ovid		х	х		х		х
Cambridge Core	x	х	х	х	х	x	х
EBSCO e-Books	x	x	х	х	х	х	х
Gale Virtual Reference	х	х	х	х		х	
HathiTtust Digital Library	x	х	х	х	х	х	х
National Academies Press	x	х		х	х		х
NCBI Bookfshelf	x	х	х	х	х	х	х
https://www.ncbi.nlm.nih.gov/books							
ProQuest ebook Central	х	х	х	х	х	х	х
R2 Digital Library	Dropped	x	x		Med lib		x
	Med Sch						

Vendor	UCF	Florida	FSU	S Car	UVA	Penn State	USC
SAGE Knowledge	х	х	x	x	х	x	х
Science Direct e-books (Elsevier)	х	х			х	x	
Freedom Collection							
Springer eBooks	х	х	x	х	х	х	х
Taylor and Francis eBooks	Indiv titles purchased as needed	x	x		x	x	x
Thieme MedOne Education (formerly Thieme ElectronicBook Library)	x	x	x				
Wiley Online Library	х	х	x	x	х	x	х

EBook Platforms: UCF has all but 2 of the platforms held by comparison institutions. Books@Ovid is held by Florida, Florida State, Virginia and Southern California. South Carolina and Penn State do not hold that platform. R2 Digital Library is basically medical school books and is paid for out of those funds. UCF did have the R2 Digital Library, but the Medical School cancelled the subscription due to budgetary cuts. The lack of either, or both, of these databases does not hinder resources for this newly proposed Kinesiology PhD. Note that all of the peer institutions, except Florida, lack 2 or more of the e-Book databases listed.

Reference Books

Reference Titles	UCF	Florida	FSU	S Car	UVA	Penn State	USC
ACL Handbook: Knee Biology, Mechanics,	x	х				х	х
and Treatment, 2013 UCF: Click here for							
ONLINE ACCESS SpringerLink							
ACSM's Guidelines for Exercise Testing	x	2014	2006	х	2014	х	х
and Prescription, Wolters Kluwers, 2018							
<u>RC684.E9 A44 2018</u>							
Athletic and Sport Issues in	х			х		х	х
Musculoskeletal Rehabilitation. Elsevier,							
2011 <u>RC1210 .A82 2011</u>							

Reference Titles	UCF	Florida	FSU	S Car	UVA	Penn State	USC
Clinical Kinesiology and Anatomy, FA	2017			2006	2006	x	х
Davis, 2017.							
<u>QP303 .L53 2017</u>							
CRC Desk Reference for Nutrition, 2006	х	2011	2011	1998	1998	x	х
QP141 .B523 2006 Use in Library only							
Encyclopedia of Exercise Medicine in	x	2007	2005		2005	x	x
Health and Disease. Springer. 2012	~	2007	2000		2000	~	~
UCF: Click here for ONLINE							
ACCESS SpringerLink							
Encyclopedia of Exercise, Sport and	x			x	х		
Health, Allen & Irwin, 2004 <u>GV567 .B78</u>							
<u>2004</u>							
Encyclopedia of Sports Medicine, SAGE,	x		2005	x	2005	x	х
2011							
UCF: Click here for ONLINE ACCESS SAGE							
Knowledge							
Encyclopedia of Sports Science,	x/x	x/x	x/x	x/x	x/x	x/x	x/x
Macmillian, 1997, v 1&2 GV558 .E53							
1997							
Gale Encyclopedia of Fitness, 2017		х		x		2012	х
Gray's Anatomy, Elsevier, 2016	х	х	x	x	х	x	х
UCF: Click here for ONLINE							
ACCESS Provided by ClinicalKey		_	_				
IOC Manual of Sports Injuries, Wiley,	х	х		x	х	x	х
2012 UCF: Click here for ONLINE							
ACCESS Wiley							
Muscle Test Handbook: Functional	X	x					
Assessment, Myotascial Trigger Points							
and Meridian Relationships, Elsevier,							

Reference Titles	UCF	Florida	FSU	S Car	UVA	Penn State	USC
2013 UCF: Click here for ONLINE							
ACCESS Elsevier ScienceDirect							
Netter's Sports Medicine, Elsevier, 2018	x		x	х	х		х
UCF: Click here for ONLINE							
ACCESS Provided by ClinicalKey							
Nutritional Supplements in Sports and	x	2008	2008	2008		х	x
Exercise, 2015 UCF: Click here for ONLINE							
ACCESS SpringerLink							
Oxford Dictionary of Sports Science and	x	x	2006	х	х	х	2006
Medicine, 1998							
<u>RC1206 .094 1998</u>							
A Primer for the Exercise and Nutrition	х	х				х	x
Sciences: Thermodynamics,							
Bioenergetics, Metabolism, 2008 UCF:							
Click here for ONLINE							
ACCESS SpringerLink							
Principles of Biomechanics and Motion	х				х	х	
Analysis, LWW, 2006							
<u>QP303 .G75 2006</u>							
Research Methods for Sports	х	х				х	х
Performance Analysis, Routledge, 2010							
<u>GV558 .0375 2010</u>							
Sports Science Handbook: the Essential	x				х	х	x
Guide to Kinesiology, Sport and Exercise							
Science, Multi-Science, 2005							
<u>GV558 .J46 2005</u>							
Sports Injuries Guidebook, Human	x						
Kinetics, 2008							
RD97 .S6888 2008							
Therapeutic Exercise Foundations and	x	2012	2007	2012	2007	x	х
Techniques, FA Davis, 2018.							
RM725 .K57 2018							

Reference Titles	UCF	Florida	FSU	S Car	UVA	Penn State	USC

Reference books: As one can see from the above comparison, holdings vary considerably as do editions of reference works. UCF has all of the titles but Gale Encyclopedia of Fitness and that one is not critical for the Kinesiology PhD program. Therefore, UCF has the reference books it needs to support the Kinesiology PhD. The library will request \$600.00 annually for the next 5 years for the purchase of needed reference books. Should no reference books be needed for a given year, the money will be used to supplement the general collection for Kinesiology.

Cardiorespiratory Instrumentation

- ▶ Parvo Medics 2400 TrueOne Metabolic System with RMR capabilities
- COSMED K5 with Omnia Software
- COSMED MicroQuark USB PC-based spirometer
- Blood pressure cuffs (automated & manual), sphygmomanometers, and stethoscopes
- ≻Hypoxico Everest Summit II Altitude Generators and cubicle system
- ≻Polar heart rate monitors with Polar Beat App
- ≻Garmin heart rate monitors
- Zephyr Bioharness with Omnisense software
- ≻Kubios HRV Premium analysis software

Treadmills & Ergometers

- ► Woodway Curve treadmill
- ≻Woodway 4front treadmill
- ► Woodway Pro treadmills
- ≻HP COSMOS T170 DE SPORTMED treadmill
- ► Lode Corival CPET Ergometers
- >Lode Excalibur Sport electronically-braked cycle ergometer
- >Lode Brachumera Sport electronically-braked upper body ergometer
- Monark Ergomedic 891E Peak Bike mechanically-braked anaerobic cycle ergometer
- Monark Ergomedic 828E mechanically-braked submaximal cycle ergometers
- Monark Ergomedic 894E Peak Bike mechanically-braked anaerobic cycle ergometer
- Monark LC7TT Novo electronically-braked cycle ergometer
- Concept2 Model E rowing ergometers with ErgData app

Strength/Power Instrumentation

- ≻Power Lift Power racks with full set of Olympic and steel plates
- Texas Power Bar, Olympic bar and Safety Squat Bar
- ► Power Lift uni/bilateral leg press
- ≻Power Lift leg extension
- ≻Biodex S4 isokinetic dynamometer
- ≻Tendo V-316 linear position transducer and analysis software
- Custom-built portable isometric mid-thigh pull racks with dual Pasco force plates
- >Dual AMTI force plates and integrated video analysis using Accupower 3.0 software
- ► Baseline handgrip dynamometer
- Microgate Optojump Next two-dimensional (1m x 1m) optical measurement system
- Microgate GYKO inertial measurement tool & GYKO RePower software
- ► Uesaka Sport vertical jump testing station

Body Composition Instrumentation

- BOD POD Gold Standard Body Composition Tracking System
- ≻GE Lunar Prodigy dual-energy X-ray absorptiometry (DEXA) scanner
- >Impedimed SOZO bioelectrical impedance spectroscopy device
- >Impedimed SFB7 bioelectrical impedance spectroscopy device
- ▶ Impedimed DF50 single frequency bioelectrical impedance analysis device
- ▶ InBody 770 multi-frequency bioelectrical impedance analysis device
- ► Lange skinfold calipers
- ≻Harpenden anthropometer
- SECA portable stadiometer

Timing & Neurocognitive Instrumentation

- Automated Neuropsychological Assessment Metrics (ANAM) software
- Dynavision D2 interactive light boards
- ► QuickBoard agility and reaction time board
- >Neurotracker 3D perceptual-cognitive assessment platform
- Catapult Minimax S4 GPS system
- ≻Blast Motion bat swing sensors
- Microgate Witty SEM proximity sensor & LED indicator system
- Microgate Witty TIMER & GATE system with Witty Manager software
- LabVIEW systems engineering software

Neuromuscular Instrumentation

- ► BIOPAC MP150 with wired/wireless EMG capabilities
- Delsys wireless EMG system
- Tensiomyography (TMG S1) muscle assessment systems
- >Artinis PortaLite NIRS portable oxygenation monitoring devices
- ➤Wagner Pain Pressure Threshold Algometer
- ➢GE LOGIQe ultrasound devices
- \triangleright Sit and reach boxes

indeed

Sign in

Senior Director of Applied Apparel Research, Nike Sport Research Lab

Nike

Beaverton, OR

Nike 9,839 reviews Read what people are saying about working here.		>
	Apply Now	
	Save this job	
	Copy link	
Job		Company

Become a Part of the NIKE, Inc. Team

NIKE, Inc. does more than outfit the world's best athletes. It is a place to explore potential, obliterate boundaries and push out the edges of what can be. The company looks for people who can grow, think, dream and create. Its culture thrives by embracing diversity and rewarding imagination. The brand seeks achievers, leaders and visionaries. At NIKE, Inc. it's about each person bringing skills and passion to a challenging and constantly evolving game.

Innovation is oxygen for NIKE, Inc., and the company depends on its talented, global workforce to breathe originality and curiosity into everything they do. The Nike Advanced Innovation team strives for lighter, faster, bigger, smarter, smaller, more efficient, more sustainable and more personal. They imagine, research, analyze and invent the next industry-changing technology to advance athletic performance. In roles that span research, design, materials and manufacturing, the Advanced Innovation team looks to the future and focuses on making the seemingly impossible, possible.

RESPONSIBILITIES: As the Sr Director of Applied Apparel Research with the Nike Explore Team (NXT) Sport Research Lab, you will lead a multidisciplinary team of researchers who are focused on delivering game changing innovations to make a diverse and inclusive population of athletes* measurably better. You will help shape and align the strategic vision of the research teams with the broader innovation goals. You will champion the role of science and research, while working across multiple functional units to ensure maximum impact to the business and the brand. In doing so, you will help apply proven, scientific performance insights to next generation, innovative Nike products and services.

As a successful candidate, you will demonstrate the following key attributes:

Page 144 of 160

https://www.indeed.com/viewjob?jk=57bd9549c9acf04e&tk=1euqnpt9m26ae000&from=serp&vjs=3
Senior Director of Applied Apparel Research, Nike Sport Research Lab - Beaverton, OR - Indeed.com

Proven record of successfully leading, inspiring, and mentoring a multidisciplinary team of scientists to deliver impactful results to a business

Ability to navigate a highly matrixed organization and deliver complex solutions to multiple business units

Ability to communicate complex, and sometime controversial topics to diverse audiences

Advanced skills in conducting research and applying scientific insights, specifically related to sport and movement through the lens of performance, injury, comfort and/or behavior

Proven track record of applying scientific insights to influence innovative product solutions

Display an entrepreneurial spirit - Understand the connectivity between research, innovation, and business. Ability to connect vision to strategy, and to focused priorities.

Meet complex challenges with imaginative state of the art approaches supported by feasible solutions

Generates new knowledge and insights about science-informed products and services that result in growth opportunities and competitive advantages in the marketplace

REQUIREMENTS: M.Sc or Ph.D. in human movement science (biomechanics, physiology, kinesiology), engineering, or related field. The candidate will have a minimum of 8 years of relevant work experience in a scientific setting, with 5 years experience in a management and/or leadership role. The candidate will have a proven track record leading a multidisciplinary team towards common goals in an industry setting. Experience in a sport science laboratory, with commonly used tools and analytical methods, is preferred. Experience in applying scientific insight to tangible product solutions, specifically apparel or textiles, is desired.

NIKE, Inc. is a growth company that looks for team members to grow with it. Nike offers a generous total rewards package, casual work environment, a diverse and inclusive culture, and an electric atmosphere for professional development. No matter the location, or the role, every Nike employee shares one galvanizing mission: To bring inspiration and innovation to every athlete* in the world.

NIKE, Inc. is committed to employing a diverse workforce. Qualified applicants will receive consideration without regard to race, color, religion, sex, national origin, age, sexual orientation, gender identity, gender expression, veteran status, or disability.

Nike 22 days ago original job

Report job

Apparel Associate jobs in Beaverton, OR

Jobs at Nike in Beaverton, OR

Apparel Associate salaries in Beaverton, OR

Hiring Lab - Career Advice - Browse Jobs - Browse Companies - Salaries - Find Certifications - Indeed Events - Work at Indeed - Countries - About - Help Center

© 2021 Indeed - Do Not Sell My Personal Information - Accessibility at Indeed - Privacy Center - Cookies - Privacy - Terms

indeed

Sign in

>

Alternate Fitness Program Manager (Army Health and Fitness)

Leidos

Fort Bragg, NC Remote

Leidos

1,186 reviews

Read what people are saying about working here.

	Apply Now
	Save this job
Copy link	
Job	Company

Description

Job Description:

The Holistic Health and Fitness (H2F) System is the Army's primary investment in Soldier readiness and lethality, optimal physical and non-physical performance, reduced injury rates, improved rehabilitation after injury, and increased overall effectiveness of the Total Army. The system empowers and equips Soldiers to take charge of their health, fitness, and well-being in order to optimize individual performance, while preventing injury and disease. The H2F Alternate PM assists the PM in providing management, direction, administration, quality assurance, and leadership for the execution of this contract providing qualified and credentialed Athletic Trainers (ATs) assigned to specifically designated units to provide forward Musculoskeletal (MSK) care, early medical intervention, Injury Prevention (IP) and performance optimization services. The APM will serve as the alternate point of contact and provide overall leadership and guidance for all personnel, including assigning tasks to personnel, supervising on-going technical efforts, managing overall performance.

Primary Responsibilities

- Serves as the principal advisor to the Lead ATs and provides additional subject matter expertise to the supported unit BDE Injury Control Directors on basic acute care, injury control, reconditioning, and performance optimization.
- Ensures the quality and efficiency of the contract, to include service delivery, technical matters, and business processes.
- Provides oversight for the performance of work, contract compliance, and quality control.

Page 147 of 160

https://www.indeed.com/viewjob?jk=da4e1bb1407cafb0&tk=1euqo3m2ssa3l800&from=serp&vjs=3

- Develops and implements plans and strategies, manages employees, and monitors and controls activities to effectively support the Army H2F program and stakeholders at all locations.
- In the absence of the PM, serves as the primary customer point of contact with the COR, Training and Doctrine Command (TRADOC) and USA Forces Command (FORSCOM) leadership, and Army installation stakeholders.
- Provides support for the contractor workforce's development and execution to operate as integrated Brigade (BDE)-based team members.
- Develops strategies for specialized H2F AT recruiting, credentialing, retention, and employee well-being initiatives and maintain, update, and monitor their effectiveness.
- Oversees and directs recruitment and screening process to ensure all certifications and credentials are valid, current, and fulfill customer requirements before onboarding.
- Works closely with the Regional/Installation Leads to make overall operational decisions regarding deployment of resources across all contract locations.
- Articulates understanding of basic evaluation techniques and use of customer feedback to improve overall program effectiveness/impact.
- Ensures ATs perform services following contracts requirements, establishes and maintains an effective quality control program.
- Interfaces with customers on a consistent basis to ensure the team is meeting expectations; modifies plans and processes to successfully meet customer requirements.
- Implements customer satisfaction processes.
- Captures and reports metrics.
- Leads investigations for corrective actions/nonconformance.
- Generates and submits a Monthly Status Reports (MSR) and other deliverables as needed.
- Works with corporate resources and functional departments to ensure effective delivery of services, including recruitment, human resources, quality assurance, and contracts.
- Provides direction to subcontractor points of contact and effective oversight of subcontractor workforce.

Basic Qualifications

- Master degree from an accredited academic institution.
- Educational or professional background in exercise science, health science, physical education, human performance, kinesiology, sport sciences and/or sport psychology.
- Minimum of 8-12 years of prior relevant experience.
- Minimum of five years of experience working with a military or DoD organization(s).
- Ability to work in a collaborative environment with remotely located team members.
- Minimum of five years of experience managing, staffing, overseeing, and completing large government projects of geographically dispersed locations (500+ personnel at 25+ Army installations).
- Exceptional leadership and stakeholder management skills and ability.
- Ability to leading a team working in a human factors, biomedical, and/or medical support (clinic, hospital or deployment field hospital setting).
- Local and long distance travel may be required to perform services. Travel may be required in order to accomplish mission goals to include evenings and weekends with the ability to use all modes of transportation.
- Knowledge of emerging best practices within the health and fitness industry.
- Ability to gain access to military bases and follow security, environmental, and cyber regulations. Proficiency in Microsoft Office Suite – Word, Excel, and PowerPoint software applications.
- This position requires access to US Government facilities and systems.
- US Citizenship, a valid driver's license, auto insurance and reliable transportation to travel to assigned locations and nearby facilities is required.

Page 148 of 160

Alternate Fitness Program Manager (Army Health and Fitness) - Fort Bragg, NC - Indeed.com

- Flexibility to work non-standard hours as needed in order to properly serve and assist clients.
- Work is generally performed in a normal office environment where there is minimal exposure to unpleasant and/or hazardous working conditions. Job assignments may require working at client site where working conditions may vary.

Preferred Qualifications

- Advanced Degree (Masters/PhD) in Biomedical Sciences, Physical Therapy, Psychology, Sociology, Sport Medicines, Health Service Management, Health/Hospital Administration or related field.
- An active Project Management Institute (PMI) Project Management Professional or PMI Program Management Professional (PgMP®) Certification.
- Licensed and NATA board certified ATC.
- Knowledge of military lifestyle through personal and/or professional experience in depth understanding about the military culture and the command structure.
- 20 years military, preferably Army, experience. Military leadership experience is a plus.

External Referral Bonus:

Ineligible

Potential for Telework:

Yes, 100%

Clearance Level Required:

Public Trust

Travel:

Yes, 50% of the time

Scheduled Weekly Hours:

40

Shift:

Day

Requisition Category:

Professional

Job Family:

Proj and Prog Management

Pay Range:

Leidos is a Fortune 500® information technology, engineering, and science solutions and services leader working to solve the world's toughest challenges in the defense, intelligence, homeland security, civil, and health markets. The company's 38,000 employees support vital missions for government and commercial customers. Headquartered in Reston, Va., Leidos reported annual revenues of approximately \$11.09 billion for the fiscal year ended January 3, 2020. For more information, visit www.Leidos.com.

Alternate Fitness Program Manager (Army Health and Fitness) - Fort Bragg, NC - Indeed.com

Pay and benefits are fundamental to any career decision. That's why we craft compensation packages that reflect the importance of the work we do for our customers. Employment benefits include competitive compensation, Health and Wellness programs, Income Protection, Paid Leave and Retirement. More details are available here.

Leidos will never ask you to provide payment-related information at any part of the employment application process. And Leidos will communicate with you only through emails that are sent from a Leidos.com email address. If you receive an email purporting to be from Leidos that asks for payment-related information or any other personal information, please report the email to spam.leidos@leidos.com.

All qualified applicants will receive consideration for employment without regard to sex, race, ethnicity, age, national origin, citizenship, religion, physical or mental disability, medical condition, genetic information, pregnancy, family structure, marital status, ancestry, domestic partner status, sexual orientation, gender identity or expression, veteran or military status, or any other basis prohibited by law. Leidos will also consider for employment qualified applicants with criminal histories consistent with relevant laws.

Leidos 30+ days ago original job

Report job

Fitness Manager jobs in Fort Bragg, NC

Jobs at Leidos in Fort Bragg, NC

Fitness Manager salaries in Fort Bragg, NC

Hiring Lab - Career Advice - Browse Jobs - Browse Companies - Salaries - Find Certifications - Indeed Events - Work at Indeed - Countries - About - Help Center

© 2021 Indeed - Do Not Sell My Personal Information - Accessibility at Indeed - Privacy Center - Cookies - Privacy - Terms

indeed

Sign in

Research Scientist

Orangetheory - Corporate Headquarters Boca Raton, FL 33487 Remote

Apply Now

Save this job

Copy link

Orangetheory® Fitness is one of the fastest-growing global fitness franchises with studios located throughout the United States as well as internationally. We are a scientifically designed, one-of-a-kind, group personal training workout broken into intervals of cardiovascular and strength training. Led by highly skilled coaches, each Orangetheory Fitness workout incorporates endurance, strength and power elements through a variety of equipment including treadmills, rowing machines, TRX® suspension training and free weights.

SUMMARY/OBJECTIVE

The Research Scientist must have a proven track record of applying the scientific method, prior experience in the implementation of exercise, nutrition and/or wellness programs and research, and exceptional project management and communication skills. As a Research Scientist, you must be able to develop, coordinate, implement and communicate science-backed programs on behalf of Orangetheory Fitness. A strong understanding of scientific principles, like study design, recruitment, data management, and presentation of results must be evident based upon prior educational and work achievements. This person must have a true passion for conducting scientific research and a knack for translating said research into real-world application to bring More Life to Orangetheory members globally. Additionally, this person will partner with the Senior Director of Health Science & Research as a subject matter expert across all departments and with strategic partners to strengthen and endorse the science-backed tenant of our brand.

ESSENTIAL JOB FUNCTIONS

- Responsible for overseeing both the development of and execution of data collection, data management, and results interpretation for both small and larger scientific studies conducted by the Health Science & Research Team at OTF.
 - This is inclusive of working cross-departmentally with OTF teammates (e.g. our Legal team for data privacy and recruitment, our Brand team for all subject-facing copy, etc.), while also working diligently with industry partners or other research collaborators.

Page 151 of 160

https://www.indeed.com/viewjob?jk=848b3800dd61b732&q=orangetheory&l=Florida&tk=1eur4294ksa9p801&from=web&vjs=3

•

- Keep abreast of current global health science and wellness initiatives, products, research findings and activities and develop a network of resources and contacts in the industry.
 - Attend, participate in, and present at research conferences and/or trade shows within the health sciences and kinesiology realms.
 - Through careful review of scientific literature and a commitment to continuing education, identify areas of opportunity for the brand to be cutting edge in its approach.
- Assist the Senior Director of Health Science & Research in managing the timely completion of projects with the Medical Advisory Board.
- Conduct thorough reviews of the literature on fitness science and wellness-related topics (e.g., the science behind EPOC), which will be used for coach educational content, creation of Marketing assets, and more.
- Assist the Senior Director of Health Science & Research with creating and managing partnerships with educational institutions, non profits and for profit business that help Orangetheory Fitness achieve the objectives listed above (e.g., WW, AHA, ACSM, ACE, NASM, etc.).

REQUIRED EDUCATION/EXPERIENCE

- MS with thesis track in exercise physiology, exercise science, nutrition, kinesiology, or a related field required; PhD a plus
- Minimum of 3 to 4 years of work experience in the health science or fitness industries with a focus on wellness and health, research coordinator experience a plus
- Must have a Basic Life Support (BLS) certification or Advanced Life Support (ACLS) certification
- Must have, or be willing to obtain within the first 90 days, a NCCA-accredited certification from ACSM, NASM/AFAA, NSCA, or ACE
- Demonstrated success with both written and oral communication (e.g., history of successful professional presentations, publications, etc.)
- Experience managing several projects simultaneously and balancing demanding priorities

ESSENTIAL SKILLS

- Excellent verbal and written communication skills and well-developed analytical skills
- Ability to effectively coordinate research projects and science-backed initiatives that necessitate crossdepartmental communication or collaboration
- Ability to perform literature searches and interpret scientific findings effectively
 - Perform and interpret basic statistical analyses and make sound judgements
- Ability to to effectively manage and coordinate a research project or scientific initiative, from start to finish, while updating key stakeholders on a regular cadence
- Proficiency with communicating and presenting scientific information to different audiences, including but not limited to, key stakeholders of Orangetheory Fitness, our Franchise network, professional and scientific conferences, and internal teammates
- Ability to work collaboratively with others from differing schools of thought
- Effectively prioritize and execute tasks conforming to shifting priorities, demands and timelines
- Extreme proficiency in MS Office programs: Word, Excel and PowerPoint

COMPETENCIES

- Attention to detail
- Commitment to job
- Strong work ethic, honest, trustworthy
- Emotional Intelligence
- Project and goal focus
- Results orientation
- Ability to work independently with effective time management skills
- Initiative
- Creativity
- Passionate about the health science industries (e.g., Kinesiology, nutrition, public health, etc.)
- Test and learn expertise / effective application of scientific method

SUPERVISORY RESPONSIBILITY

This position does not have direct supervisory responsibilities; however, the Research Scientist will assist the Senior Director of Health Science & Research in working with our Medical Advisory Board.

PHYSICAL DEMANDS

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. While performing the duties of this job, the employee is regularly required to talk or hear. The employee frequently is required to stand; walk; use hands to grasp, handle or feel; and reach with hands and arms.

POSITION TYPE

This is a full-time, remote position with travel. Ideally, the Research Scientist resides in the Greater Atlanta, GA area.

TRAVEL

Up to 20% travel is required for this position.

EEO STATEMENT Orangetheory Fitness provides equal employment opportunity to all individuals regardless of their race, color, creed, religion, gender, age, sexual orientation, national origin, disability, veteran status, or any other characteristic protected by state, federal, or local law. Discrimination of any type will not be tolerated.

Acknowledgement *

I understand that I am applying for a position with an employer that is an independently owned and operated Orangetheory® Fitness franchisee, not the franchisor, OTF Franchisor, LLC or any of its affiliates (OTFF). With respect to any position with a franchisee, I understand and agree that any information I provide in this application will be submitted directly to the independent franchisee, who is solely responsible for all employment related matters in their studio. This means, among other things, that the independent franchisee is solely responsible for and unilaterally makes all decisions concerning my employment, including hiring, firing, discipline, supervision, staffing and scheduling. OTFF will not receive a copy of my application, will have no control over whether I receive an interview and/or am ultimately hired, does not control and is not responsible for the employment policies and practices of independent franchisees, and does not employ independent franchisee's employees. If I am hired to work at an independent franchisee's studio, the

Page 153 of 160

independent franchisee, and not OTFF, will be my employer. By submitting my application and resume, I am confirming that I am agreeing and consenting to the foregoing.

Orangetheory - Corporate Headquarters 8 days ago original job

If you require alternative methods of application or screening, you must approach the employer directly to request this as Indeed is not responsible for the employer's application process.

Report job

Research Scientist jobs in Boca Raton, FL

Jobs at Orangetheory in Boca Raton, FL

Research Scientist salaries in Boca Raton, FL

Hiring Lab - Career Advice - Browse Jobs - Browse Companies - Salaries - Find Certifications - Indeed Events - Work at Indeed - Countries - About - Help Center

© 2021 Indeed - Do Not Sell My Personal Information - Accessibility at Indeed - Privacy Center - Cookies - Privacy - Terms



MEMORANDUM

September 14, 2021

TO:Jeremy Hudak, Assistant Director, Academic AffairsFROM:Tim Letzring, Sr. Associate ProvostRE:Ph.D. Biomedical Engineering Proposal

Jeremy, please find below an outline of the questions posed concerning the recent proposal for the Ph.D. in Kinesiology. Our response to each query is in italics following the prompt also indicating the page number of edit in proposal as appropriate. Thank you for your review and please let us know if you need anything further.

- Please provide the title and affiliation for the external consultants in Section I.C. of the proposal.
 - The following was added to this section at the top of page 6.
 - The external consultants for the doctoral program proposal were Dr. Lori Ploutz-Snyder and Dr. Melinda Solmon. Dr. Ploutz-Snyder is a professor of Movement Science and dean of the University of Michigan School of Kinesiology. Dr. Solmon is Professor and Director of the School of Kinesiology at Louisiana State University.
- In Section II.A., please change the reference to the Florida Agency for Workforce Innovation to the Florida Department of Economic Opportunity, which is the current title for that agency.
 - Edited to reflect the FDEO name replacement in the last paragraph on page 9.
 - In addition, the document was updated to the current template since this proposal was started before the change and should have been moved to the newer version sooner.
- In Section VIII.F., please provide more information regarding how industrydriven competencies were identified and incorporated into the curriculum.
 - The following additional information on the curriculum development and the creation of an advisory committee was added to the proposal beginning on page 29-30.

The curriculum for the proposed Kinesiology Ph.D. program has been updated from the existing Education Ph.D. - Exercise Physiology track, which was developed through practical experience and industry interaction, including faculty participation in professional organizations and completion of industry-funded projects. Industries involved in these projects included 4D LLC, Advent Health, CureWave Lasers, Glucose Health Inc., and TSI Group Ltd. One of the revisions to the curriculum includes students demonstrate industry-relevant competencies, through completing acceptable professional certification at the time of entering candidacy.



UNIVERSITY OF CENTRAL FLORIDA

An additional way these industry interactions occurred was with representatives from the American College of Sports Medicine (ACSM), the National Strength and Conditioning Association (NSCA), the International Society of Sports Nutrition (ISSN), and the Center for Applied Health Sciences (CAHS), four leading industry related organizations around kinesiology and related fields. ACSM has more than 50,000 members and certified professionals from 90 countries around the globe. These members represent over 70 occupations within the sports medicine field including personal trainers, physicians, sports medicine, exercise science, and health and fitness professionals. Similarly, NSCA is a professional association dedicated to advancing the strength and conditioning and related sport science professions around the world. The NSCA community is composed of more than 60,000 members and certified professionals throughout the world who further industry standards as researchers, educators, strength and conditioning coaches, performance and sport scientists, personal trainers, tactical professionals, and other related roles. The ISSN coordinates research and industry around science-based sports nutrition and supplement information. Industry leaders in the organization are exercise physiologists, fitness professionals, nurse practitioners, nutritionists, personal trainers, sport dietitians, sports nutritionists, and strength and conditioning professionals. The Center for Applied Health Sciences (CAHS) is a privately held, fullservice CRO (Contract Research Organization) specializing in the rapid completion of human clinical trials. The Center is assisted and advised by an international network of physicians, scientists, and industry professionals who are experts in the fields of medicine, research design, applied physiology, nutrition, and professional ethical standards. Furthermore, representatives from these four industry connected organizations have provided letters of support for this proposal that demonstrate the program's impact on industry and professional practice. Excerpts from the letters are provided below.

- Dr. NiCole Keith, ACSM President, stated: "ACSM has enjoyed having UCF students present their research at our regional and national conferences. I believe the newly proposed Ph.D. program will reinforce what has been accomplished and, in my opinion, elevate the education and research that will benefit our profession and society as a whole."
- Dr. Travis Triplett, NSCA President, stated: "I am a strong supporter of the proposed Ph.D. program at the University of Central Florida. I firmly believe that this program will shape graduates into active and energetic leaders. The analytical skills that will be instilled in these diverse groups of young men and women will contribute to the overall scientific body of knowledge and education in physical medicine locally, statewide, and nationally...As you are aware, UCF students have been leaders within the NSCA, presenting their research, successfully applying for grants, and winning national awards and scholarships at our national conferences. I believe the newly proposed Ph.D. program



UNIVERSITY OF CENTRAL FLORIDA

will reinforce what has been accomplished and, in my opinion, elevate the education and research that will benefit society as a whole."

- Dr. Jose Antonio, CEO of ISSN, and Dr. Shawn Arent, ISSN President, stated: "The students from the UCF program have presented over the past ten years at our national conference and have represented the program extremely well...The research they have published and the outstanding students they have graduated is a testament to a great program at the University of Central Florida."
- Tim Ziegenfuss, Chief Scientific Officer, CAHS found the "proposed Kinesiology Ph.D. program at the University of Central Florida fosters a curriculum and research engagement consistent with potential future CAHS employees. The core curriculum and elective course offerings would facilitate knowledge that could be applied to CAHS-related functions, including research methods and clinical trials, substantial experiences conducting human clinical trials, and an understanding of food, dietary supplements, and drug interactions with exercise on health and performance."

Connections to industry leaders is also demonstrated through their sponsorship of the inaugural Institute of Exercise Physiology and Rehabilitation Science Conference held virtually Spring 2021. Sponsors included Delsys Incorporated, Atlas Rehabilitation, Biodex Medical Systems, NeuLife Rehab, B Physical Therapy Oviedo, TriPT, COSMED, Jali Medical, and Prevail Strength and Conditioning. Finally, the Institute of Exercise Physiology and Rehabilitation Science is currently in the process of developing an External Advisory Board consisting of university, industry, and community experts with a mission to provide guidance, strategic direction, and advocacy to its director and key stakeholders. Representatives from each of the units within the School of Kinesiology and Physical Therapy have been asked to suggest potential members of the External Advisory Board, and some of the preliminary goals are to recruit professionals from sports medicine staff involved with elite athletes, contract research organizations, aerospace research and development, human performance/fitness centers, and/or military-based organizations. One of the tasks of the External Advisory Board will be to provide unbiased, outside perspectives and evaluation of the Kinesiology PhD program during biannual meetings. This information will be taken under consideration while supporting the ongoing curriculum improvement processes of the Kinesiology graduate programs at UCF.

- Reference to the creation of the advisory board was added to the implementation table on page 23.
- In Section X.C., please provide a more detailed description of the classrooms, teaching laboratories, research laboratories, offices, and other spaces that are currently available at the institution to implement the proposed program through year 5.
 - The following information on space was added beginning on page 45.



UNIVERSITY OF CENTRAL FLORIDA

The Division of Kinesiology takes part in the annual classroom allocation process along with other programs from the UCF College of Health Professions and Sciences. As such, the Kinesiology Ph.D. program will have access to any of the classrooms on the Orlando campus when requested and confirmed through the appropriate channels. Through this allocation process, two classrooms have been consistently made available to the Division of Kinesiology and utilized for the graduate programs:

- Room: CB1 105 with a capacity of 76 seats
- Room: TA 322 with a capacity of 53 seats

Numerous classrooms of varying capacities located in the Health Sciences 1 (HS1) building have also been used to schedule Kinesiology courses. From a research laboratory perspective, the following are some of the facilities associated with the School of Kinesiology and Physical Therapy and will be used to support the Kinesiology Ph.D. program:

- Kinesiology Teaching Laboratory (Room: ED 175; 1773 sq ft)
 - 40-seat capacity
 - Additional 940 sq ft of auxiliary space (Room: ED 172/ED 172B)
- Wellness Research Center/Faculty and Staff Gym (Room: ED 179A/B/C; 3256 sq ft)
- Combined Athletic Training/Kinesiology research/teaching space (Room: ED 174; 2768 sq ft)
 - Exercise Physiology Intervention and Collaboration (EPIC) Laboratory
 - Physiology of Work and Exercise Response (POWER) Laboratory
 - Rehabilitation, Athletic Assessment, and Dynamic Imaging (READY) Laboratory
- Combined Physical Therapy research/teaching space (Room: ED 174A/ED 172C; 1736 sq ft)
 - Musculoskeletal Research Laboratory
 - Neuromuscular Plasticity Laboratory
- Cellular Exercise Physiology Lab (Room: BIO 224; 400 sq ft)
- DPT Anatomy Laboratory (Room: HS1 265; 1800 sq ft)

Workspaces for doctoral students are located throughout these facilities and are dependent upon the assigned faculty mentor and research interests. Examples of specific instrumentation currently housed within the Division of Kinesiology are included in **Appendix H**.

- In Appendix A Table 2, please clarify the anticipated start date for program faculty. Currently, Appendix A – Table 2 identifies nine faculty members that will begin participating in fall 2021, which is prior to the proposed program's implementation term.
 - Updated Table 2 of Appendix A to show faculty participation beginning Fall 2022.

September 2, 2021

MEMORANDUM

TO: Dr. Michael D. Johnson Interim Provost and Vice President for Academic Affairs University of Central Florida

Christy Engle

FROM: Dr. Christy England Vice Chancellor for Academic and Student Affairs

SUBJECT: Ph.D. in Kinesiology, CIP 31.0505

The initial review of the Ph.D. in Kinesiology, CIP 31.0505, has been completed. The following clarifications and revisions are required.

- Please provide the title and affiliation for the external consultants in Section I.C. of the proposal.
- In Section II.A., please change the reference to the Florida Agency for Workforce Innovation to the Florida Department of Economic Opportunity, which is the current title for that agency.
- In Section VIII.F., please provide more information regarding how industry-driven competencies were identified and incorporated into the curriculum.
- In Section X.C., please provide a more detailed description of the classrooms, teaching laboratories, research laboratories, offices, and other spaces that are currently available at the institution to implement the proposed program through year 5.
- In Appendix A Table 2, please clarify the anticipated start date for program faculty. Currently, Appendix A – Table 2 identifies nine faculty members that will begin participating in fall 2021, which is prior to the proposed program's implementation term.

Please submit your response to this memo no later than September 17, 2021. Please note that a substantive delay in responding to these issues and/or failure to adequately address the issues in the initial response may result in a delay in the implementation of this program. Should you have any questions, please contact Dr. Disraelly Cruz at (850) 245-9681 or Disraelly.Cruz@flbog.edu.

CE/jmh

c: Dr. Timothy Letzring Dr. Disraelly Cruz Mr. Jeremy M. Hudak