



## 2016 Academic Program Review Summary

### College of Education

### Department of Exercise Science and Health Promotion

#### Part 1: Overview

#### A. Degree Programs by Level (31.0505)

##### Undergraduate

Exercise Science and Health Promotion (B.S., B.S.E.)

##### Graduate

Exercise Science and Health Promotion (M.S.)

#### B. Mission and Purpose

##### Mission

The Department of Exercise Science & Health Promotion (ESHP) is headquartered on the Boca Campus and offers interdisciplinary undergraduate and graduate degrees in exercise science and health promotion. The ESHP programs are designed to prepare students for careers in clinical, corporate, and community/non-profit based physical fitness and health promotion, post graduate study in applied health sciences (e.g. physical therapy, physician assistant) as well as advanced study in human biology/physiology. Ultimately, whether in the role of practitioner or scientist the ESHP graduate is uniquely prepared to impact the health and well-being of their fellow citizens. Importantly, the impact of ESHP graduates includes the potential to reduce health care costs when those they touch adopt a healthy lifestyle and dramatically reduce the occurrence and severity of diseases (obesity, heart disease, hypertension, diabetes, cancer) associated with sedentary living.

#### C. Major changes since the last program review

In the fall of 2015, the FAU College of Education became the first in Florida to receive accreditation through the Council for the Accreditation of Educator Preparation (CAEP), the single specialized accreditor for educator preparation in the United States. Faculty underwent the new accreditation process in order to take the lead in meeting new rigorous standards.

Faculty changes since the last Academic Program Review in 2008 include the addition of three faculty, from 9 in 2008 to a total of 12 faculty, including the Department Chair. During that same period, enrollment has more than doubled from 500+ to 1200 undergraduates and 65 MS candidates.

With health care costs expected to double over the next decade there will be a shift from disease management to prevention. If proactive, ESHP will be uniquely positioned to lead the surge in preventative health care in America. To effectively lead, ESHP must expand in three ways; first, we must strengthen relationships with medical/health oriented programs to enrich our understanding of how existing health care providers can include a preventative element in their delivery system; second, ESHP should take the lead in developing an interdisciplinary master of public health (MPH) with a concentration in physical activity and public health that emphasizes the economic social and health consequences of sedentary living. A goal of the program would be to prepare students to interface with which local, state and national government and business to design preventative health care delivery systems within existing health care delivery models; third, we must expand our basic science programs so that all ESHP students have the opportunity to experience a broader range of laboratory and research programs emphasizing applied physiology, community based health

promotion as well as the molecular and genetic basis of exercise induced neuromuscular plasticity, particularly in the area of healthy cognitive aging. To truly expand and have a relatively immediate impact, ESHP must be charged with creating a School of Preventative Health Care. School status would include a research mission in which Exercise Science & Health Promotion takes a lead role among a select group of academic programs at FAU who will be given the charge of creating academic and research programs that cross academic boundaries aimed at predicting health care cost savings associated with an active lifestyle. The formation of the School of PHC is a timely and inclusive venture that aligns with the Institute for Healthy Aging and Lifespan Studies in the COM and the Healthy Aging Pillar. Clearly, this would require additional faculty and adequate space.

At the undergraduate level we have made several notable changes to the program of study: 1) we expanded course offerings in health promotion in response to student exit surveys in which they expressed the need for more health promotion content, 2) we dropped practicum (clinical experience working with older adults) from the required course list in favor of elective status. Assigning practicum elective status allowed us to increase the total elective credits to 12. Again, students have requested program flexibility in the form of electives that could be taken outside the department to meet admissions requirements for post-graduate study in applied health sciences (e.g. PT, OT, PA) programs. In the MS program we have made several significant changes over the last couple of years including: 1) running the health promotion (HP) track exclusively online, 2) revising the HP course content to include SLO that directly address the content knowledge associated with the Certified Health Education Specialist (CHES) certification exam, 3) expand our laboratory facilities for all ESHP students (BS/MS) including an exercise biochemistry lab, muscle physiology lab and animal lab (Koi fish model) with nearly \$500,000 spent on laboratory equipment. I would point out that the \$500,000 came from FAU tech fee grants obtained by ESHP faculty. Additionally, we have hired a laboratory manager trained in the basic sciences with requisite laboratory skills. The collective impact of the aforementioned changes has been to support rapidly growing programs at the BS/MS levels, including a dramatic increase in undergraduate and graduate research. For example, ESHP's Brandon Fico was awarded the College of Education Undergraduate Researcher of the Year award for 2014. Brandon worked with an ESHP faculty mentor in the exercise biochemistry lab. Similarly, Arun Maharaj a first year MS student was awarded a university grant to support his research on the effects of excessive endurance exercise on the heart using a Koi fish model. Finally, over the last two years five of our ESHP MS graduates have gone on to PhD programs around the country (i.e. Texas, Wisconsin, Alabama, Florida, Virginia), all fully funded for the duration of their PhD programs. All five of our MS graduates completed theses based on results obtained in our new exercise biochemistry laboratory.

## **Part 2: Findings**

### **A. Strengths**

Existing faculty members have noteworthy positive outlooks and appear to be competent, highly dedicated to the program, and extraordinarily energetic. This combination of characteristics is indicative of a highly-desirable working culture that stems from the ongoing interaction between the administration and faculty.

Generally speaking, the review team found that the ESHP Department faculty and staff were genuinely concerned and vested in the educational process of their undergraduate and graduate students. Although student interaction with the review team was limited, the dramatically-increased size of the program suggests the existence of both a strong demand for and reasonable satisfaction with its offerings.

### **B. Weaknesses/Challenges**

Required laboratory experiences are problematic for large sections and either result in bottlenecks due to enrollment caps or force instructors to use these experiences on a demonstration-only basis.

Faculty are housed in four different facilities resulting in minimal incidental or casual professional contact. This arrangement is counterproductive as it tends to isolate faculty. Research laboratory space is relatively cramped and the instructional lab primarily servicing the large undergraduate program is quite small and modestly equipped.

Infrastructure, organizational, and financial shortcomings are readily apparent and need to be expeditiously remediated by the university.

*It cannot be overstressed that the department is substantially understaffed.* It is customary to have a minimum of two faculty members with expertise in each sub-discipline of the respective general areas. For

example, in exercise physiology you would expect to find no less than two wet-lab and one or two performance/applied exercise physiologists, two biomechanists, at least one specialist in discipline-specific research design, measurement and statistics, one or two people in motor control, and one or two people in exercise psychology. “Lone-wolf” operations exist in the field, but there is always risk that the operation dies with the departure of that faculty member.

### **C. Recommendations**

**The College of Education Dean’s Office will consider each recommendation and the department action plan response and priorities during the formal Executive Committee retreat in July 2016.**

**Recommendation 1:** Understaffing should be considered as a temporary or “emergency” scenario only, with plans for phased in remediation expeditiously implemented.

**Recommendation 2:** The department should exploit every opportunity to connect with other units in this “university pillar.”

**Recommendation 3:** The faculty and students in the program would be best served if two tracks were offered: 1) exercise science, and 2) health promotion.

**Recommendation 4:** The department should consider allowing students to take all of the electives from programs outside of the department.

**Recommendation 5:** The department should investigate the possibility of applying for such accreditation.

**Recommendation 6:** Develop an accelerated B.S.-to-M.S. degree 12-hour option.

**Recommendation 7:** The department should consider deleting the lab portion of selected undergraduate courses in order to cover more conceptual material, and adding a separate lab course in the semester preceding the internship.

**Recommendation 8:** If the institution desires an increase in this type of engagement, then other responsibilities of Graduate Faculty will need to be reduced.

**Recommendation 9:** The phased acquisition of two tenure-seeking biomechanists would greatly facilitate this process and support existing lines of research.

**Recommendation 10:** Proceed with caution with regard to proposing a new Public Health degree program unless new sources of substantial and sustained funding are acquired

**Recommendation 11:** If one or both of the aforementioned endorsements have been attained, it would be appropriate to communicate that information on the web site. If neither endorsement has been attained, it would be appropriate to apply for it (them).

**Recommendation 12:** Plans should be developed and a timeline established for implementing increased autonomy for this academic unit by granting it School status