

## REVIEW OF THE B.S. IN EXERCISE SCIENCE

Classification of Instructional Programs (CIP) Code: 31.0505  
Kinesiology and Exercise Science

### OVERVIEW

The B.S. in Exercise Science program at Illinois State University is housed in the School of Kinesiology and Recreation within the College of Applied Science and Technology. The school also offers undergraduate minors in Athletic Coaching, Exercise Science, and Recreation and Park Administration; a B.S. in Athletic Training; a B.S., B.S.Ed. in Physical Education; a B.S. in Recreation and Park Administration; and an M.S. in Kinesiology and Recreation with eight sequences. The last review of the B.S. in Exercise Science program occurred in 2011-2012.

The B.S. in Exercise Science program provides instruction in physiology, biomechanics, and sports psychology to prepare students for careers in the fitness and wellness industry. In addition, the program serves students preparing for graduate training required to practice in an allied health profession such as physical therapy or occupational therapy. Enrollment in the Exercise Science program has surged 60 percent since the 2011-2012 program review, to an historical high of 308 students in fall 2018.

As this program review cycle concludes and a new one begins, the Exercise Science program is prepared to begin implementing a re-organized curriculum that offers separate sequences, one for students seeking to work in fitness and wellness and one for students working toward an allied health career. The latter sequence is expected to serve students who in prior years would have applied for admission to the B.S. in Athletic Training program offered by the School of Kinesiology and Recreation. That program is being phased out by the school due to a change in the gateway degree required for the athletic training profession, from the bachelor's degree to the master's degree.

#### Enrollment and Degrees Conferred, 2011-2018

##### B.S. in Exercise Science, Illinois State University

First Majors Only

	2011	2012	2013	2014	2015	2016	2017	2018
Enrollment, fall census day	193	188	176	197	218	252	261	308
Degrees conferred, graduating fiscal year	59	48	68	68	67	49	73	62

Table note:

Graduating Fiscal Year consists of summer, fall, and spring terms, in that order. For example, Graduating Fiscal Year 2018 consists of the following terms: summer 2017, fall 2017, and spring 2018.

### EXECUTIVE SUMMARY PROGRAM REVIEW SELF-STUDY REPORT

#### Program goals

The Exercise Science major provides students with knowledge of the scientific principles underlying human movement and performance and with experiences applying that knowledge. The knowledge and experiences prepare graduates for life-long learning and careers in fitness, sports performance, health/wellness, rehabilitation, or exercise science research.

#### Students learning outcomes

Upon completion of the B.S. in Exercise Science program, the exercise science student will ...

- Have acquired foundational knowledge pertaining to the study of human movement and physical activity.
- Be able to apply foundational knowledge of human movement and physical activity.

- Be able to demonstrate the ability to assess human performance related characteristics of individuals from diverse populations.
- Be able to demonstrate the ability to design, implement, manage, and evaluate safe and effective physical activity programs for individuals from diverse populations in a variety of settings.
- Be able to effectively engage in critical thinking and communication regarding contemporary issues related to human movement and physical activity.
- Be a proponent of leading a physically active lifestyle.

### **Program curriculum** (2018-2019)

Graduation requirements:

120 credit hours consisting of 55 credit hours in the major and 39 credit hours of General Education courses, with the balance earned through electives. The 55 credit hours in the major include 20 credit hours in foundational kinesiology and recreation courses, 23 credit hours in exercise science courses, and 12 credit hours earned by completing one of two options. Option 1 consists of 2 credit hours of a professional practice seminar and 10 credit hours of professional practice. Option 2 consists of 12 credit hours of advanced study through courses approved by exercise science faculty.

### **Program delivery**

The program is offered on the Normal campus.

The program is delivered primarily through face-to-face or blended face-to-face/online instruction.

The School of Kinesiology and Recreation sponsors short-term cultural immersion experiences in Costa Rica, Italy, New Zealand, Poland, and Russia.

### **School faculty** (Fall 2018)

24 tenure track faculty members (7 Professors, 8 Associate Professors, and 9 Assistant Professors)

17 non-tenure track faculty members (11 full-time and 6 part-time, totaling 13.99 FTE)

Undergraduate student to faculty ratio: 24.7 to 1

Undergraduate student to tenure-line faculty ratio: 38.1 to 1

Core faculty for the B.S. in Exercise Science program includes nine tenure-line faculty members and three non-tenure track faculty members.

### **Specialized accreditation**

The B.S. in Exercise Science program is not affiliated with a specialized accreditation association.

### **Changes in the academic discipline, field, societal need, and program demand**

The B.S. in Exercise Science program continues to experience enrollment growth due to sustained and growing interest in the program from two primary groups. One group consists of students seeking an undergraduate degree to qualify for positions related to fitness, wellness, sports enhancement, or strength and conditioning upon graduation from the program. In recent years more students in the B.S. in Exercise Science program have sought internships in those fields. Program faculty expect that level of interest to continue or increase in the coming years. A second group consists of students seeking an undergraduate degree to prepare them for advanced training in an allied health field that requires at least a master's degree to practice, such as physical therapy or occupational therapy. Demand from the latter group is expected to further increase in the coming years as the gateway degree for athletic trainers is transitioned by the accrediting body in the field from the bachelor's level to the master's level. That change has affected athletic training education offered by the School of Kinesiology and Recreation, which has disestablished its B.S. in Athletic Training program and applied to the Illinois Board of Higher Education for authority to confer a Master of Athletic Training degree instead. The Exercise Science program is well-prepared to meet additional demand for students seeking to prepare for allied health fields, including athletic training, through its new allied health sequence, which is scheduled to begin enrolling students in fall 2019.

### **Responses to previous program review recommendations**

The 2011-2012 program review resulted in recommendations to keep enrollment goals and program resources aligned, establish additional clinical sites to serve the growing number of students in the program, develop a plan to track alumni, and recruit faculty and students who self-identify with traditionally underrepresented racial/ethnic groups. Enrollment and instructional capacity have been carefully monitored by faculty over the last seven years. Enrollment increases have largely been accommodated by offering additional sections taught by existing faculty members and by slightly increasing class sizes. However, in 2018-2019 the provost authorized a search for an additional tenure-line faculty member to increase the instructional capacity of the program. The need for additional clinical sites to accommodate the growing number of students seeking internships was ameliorated in the short term by advising students to complete their internships in their hometowns during the summer following completion of their coursework. In the longer term, the demand for internships is expected to ease through reorganization of the curriculum into two sequences, only one of which requires an internship. Since the last review, the program has used contact information collected through administration of a student exit survey to increase communications with alumni. The program has also encouraged alumni to participate in profession- and career-oriented social media sites, such as a program alumni Facebook group and LinkedIn. Efforts to recruit for diversity among students and faculty, through recruitment fairs, tours, and informational meetings, continue.

### **Major findings**

When it was first established, the curriculum of the B.S. in Exercise Science program was intended to serve students interested in careers in the fitness and wellness industries upon graduation. The curriculum as it has evolved since then continues to serve those students well. However, at the time of the last program review, faculty noted an increase in the number of students enrolling in the program to prepare for graduate-level education in an allied health field. To accommodate those students, faculty modified the curriculum to allow an exemption from the fitness and wellness internship requirement, to permit students to instead take courses directly related to their chosen allied health field. The growing number of students seeking the exemption since its introduction demonstrates continued growth in the number of students working toward an allied health career. Such students will be even better served in the coming years through introduction of the allied health professions sequence in fall 2019, while students seeking fitness and wellness careers will be served through the new health and human performance sequence. A continuing issue for the program is the capacity of faculty to maintain program quality as demand for both plans of study continues to increase. Through changes in class offerings, increases in class sizes, and hiring a new tenure-line faculty member, the program has been able to serve additional students while maintaining program quality. In the coming years, however, creative approaches to course delivery may be necessary to continue to do so.

### **Initiatives and plans**

- Implement the new curriculum (i.e., the introduction of sequences).
- Continue to monitor and address the impact of the new curriculum on demand for upper-level classes, instructional capacity, and equipment needs.
- Continue to explore use of alternative revenue sources to maintain program quality in light of enrollment growth.

## **PROGRAM REVIEW OUTCOME AND RECOMMENDATIONS FROM THE ACADEMIC PLANNING COMMITTEE**

**Review Outcome.** The Academic Planning Committee, as a result of this review process, finds the B.S. in Exercise Science program to be in Good Standing.

The Academic Planning Committee thanks faculty and staff of the B.S. in Exercise Science program for a complete and forward-looking self-study report. A particularly noteworthy component of the report is the analysis of comparator and aspirational programs. The analysis evidences considerable research by faculty, including contacts with colleagues at other institutions. The section also evidences contextualization of findings, through articulation of action goals.

The committee acknowledges increasing enrollments in the B.S. in Exercise Science program since the prior program review and commends faculty and staff for accommodating the increases. Enrollment has grown from 168 students in fall 2010 to 308 students in fall 2018. Effectiveness of faculty and staff in accommodating the larger student population is evidenced by retention rates, graduation rates, and percentages of program completers graduating within four years that consistently exceed averages across all undergraduate programs at the University. For example, 84.6 percent of Fiscal 2016 graduates who had enrolled at the University as first-time-in-college students and earned the B.S. in Exercise Science degree graduated from the program within four years, compared to 63.9 percent across all undergraduate programs. The program has also worked toward timely graduation of students entering the program as external transfer students, through development of articulation agreements with community colleges. Success of those efforts is evidenced by average credits earned by transfer students at the time of graduation at or below the average across all undergraduate programs at the University.

The committee commends faculty for involving students in research and co-curricular activities. Students are encouraged by faculty members to assist them with their research and to collaborate in presenting research findings at regional and national conferences or in publishing research findings in academic journals of the discipline. The committee further commends faculty members for their intentional efforts to encourage students to participate in the Honors program (e.g., by providing information regarding honors opportunities in all course syllabi) and for accommodating students who choose to do so by arranging research projects with them. Those efforts have contributed to admission of program graduates into master's programs at research-intensive institutions such as Duke University, Washington University (St. Louis), and the University of Illinois at Chicago. The committee encourages faculty to continue engaging students in these research endeavors and to document both the collaborations and their outcomes. The program offers numerous co-curricular learning experiences in addition to the opportunities for research. The committee recognizes the multiple field observations designed to help students choose their career path; cultural immersion opportunities in Russia, Costa Rica, Poland, Italy, and New Zealand; and activities sponsored by the Exercise Science Club, the registered student organization for students in the program, such as the annual field trip to allied health facilities in nearby metropolitan areas.

The committee commends faculty for its work in recent years to plan the allied health professions sequence, which is designed to prepare students intending to seek admission to professional programs on the graduate level leading to work in athletic training, physical therapy, occupational therapy, or a related field. Those efforts are especially significant given planned replacement by the School of Kinesiology and Recreation of its long-standing B.S. in Athletic Training program with a Master of Athletic Training, in response to transition of the entry-level degree required to practice in that field from the bachelor's degree to the master's degree. The new allied health professions sequence will not only provide a path for students seeking to prepare for graduate athletic training study but will also provide a clearer path for students preparing for graduate work in other allied health fields.

The self-study report refers to stresses on faculty and on other program resources resulting from increases in enrollment since the last program review. Introduction of the allied health professions sequence in fall 2019 could exacerbate those stresses. Accordingly, the committee asks faculty and staff to further study enrollment and program resource needs for the coming program review cycle, adopt strategies for keeping enrollment goals and program resources aligned, and document those strategies in a follow-up report submitted to the Office of the Provost. The committee asks the School of Kinesiology and Recreation to submit the report on behalf of the program by December 15, 2019. The committee asks that the report at minimum set forth enrollment targets for first-time-in-college students, external transfer students, and internal transfer students for each sequence, instructional capacity needed to accommodate students if those targets are achieved, recruitment strategies for building applicant pools that are diverse with respect to race/ethnicity and gender, and strategies for promoting an inclusive environment conducive to maintaining diversity. Strategies faculty might deploy to recruit for diversity include outreach to high schools with high percentages of students identifying with traditionally underrepresented racial/ethnic groups, seeking articulation agreements with community colleges serving those high schools, and fundraising for scholarships for use in recruiting students to complement awards offered by the school for retention purposes. Strategies for maintaining an inclusive environment might include offering clinical experiences in a variety of settings involving a variety of client types, considering diversity when selecting course content, and recruiting for faculty diversity.

**Recommendations.** The Academic Planning Committee makes the following recommendations to be addressed within the next regularly scheduled review cycle. In the next program review self-study report, tentatively due October 1, 2026, the committee asks the program to describe actions taken and results achieved for each recommendation.

**Implement and evaluate the allied health professions sequence.** The committee recognizes that a key task ahead of exercise science faculty is implementing the new allied health professions sequence, which is scheduled to enroll its first students in summer/fall 2019. The committee encourages faculty to regularly monitor implementation of the sequence to identify any modifications that may be needed to best meet sequence goals. During the coming program review cycle, the sequence is expected to graduate its first students. The committee recommends that faculty evaluate the extent to which the sequence prepares students for admission to graduate study in allied health professions, including admission to the new Master of Athletic Training program. The committee supports the observation in the self-study report that adding professional practice experiences to the sequence curriculum may need to be considered. Through their study of aspirational programs for this self-study report, faculty members have already identified numerous options for doing so.

**Seek synergies between the allied health professions sequence and graduate allied health programs.** To best position students enrolling in the allied health professions sequence for admission to graduate allied health programs, the committee encourages exercise science faculty to seek synergies with graduate programs in the state and region, including the new Master of Athletic Training program to be offered by the School of Kinesiology and Recreation. Just as the school has negotiated articulation agreements with feeder community colleges to streamline matriculation of their students into the B.S. in Exercise Science program, the school might seek agreements with graduate schools into which completers of the allied health professions sequence may seek admission.

**Increase faculty diversity.** According to the program review self-study report, only one of the 35 full-time faculty members in the School of Kinesiology and Recreation as of fall 2017 self-identifies with a racial/ethnic group traditionally underrepresented in the discipline and field. With respect to gender, while 59 percent of full-time faculty members in the school are women, only one of nine tenure-line faculty members identified in the self-study report as teaching in the exercise science program is a woman. The committee encourages exercise science faculty members to collaborate with their faculty colleagues in the school to work toward increasing representation of persons of color and women among the tenure-line faculty members teaching in the exercise science program as faculty positions come open. The committee also recommends recruiting for diversity with respect to other identities and with respect to the expertise, interests, and perspectives faculty members bring to the school. One step in doing so might be for faculty to review and evaluate past efforts to recruit for diversity to identify recruitment strategies to continue and those to change. The newly-established Diversity and Inclusion Committee in the school could provide an appropriate venue for those efforts. Faculty might seek guidance with this endeavor from the Office of Equal Opportunity and Access and the Office of Human Resources at the University and from professional organizations in the discipline.

**Continue efforts to track program alumni.** The committee supports the program in its plans to expand alumni relations to include additional social media platforms. Maintaining a robust approach to alumni tracking is critical to seeking feedback regarding the effectiveness of the program in preparing students for their chosen career. Information gleaned from alumni contacts can also help faculty arrange additional clinical experiences, seek alumni help with mentoring students, and solicit funds to support program initiatives.

**Continue exploring alternative revenue streams to support the program.** The self-study report evidences exploration by exercise science faculty of alternative revenue streams to support the program. The report specifically references a plan whereby the program would be permitted to retain tuition generated by health and exercise classes offered to students regardless of their major. While commending exercise science faculty for exploring alternative revenue streams, the committee notes that the long-standing funding model used by the University does not permit retention of tuition revenue generated by a program or unit but instead provides for sharing of that revenue across all programs of the University. The committee encourages exercise science faculty to consider other revenue enhancement models. One such model is provision of fee-based services to individuals or organizations external to the University, as is done by several clinics affiliated with the University including the Eckelmann-Taylor Speech and Hearing Clinic, the Psychological Services Center, and the Sports Medicine and Rehabilitation Therapy (SMART) Clinic.

**Continue collaborating with Milner Library to provide resources and information fluency instruction in support of the program.** The committee recognizes collaboration between School of Kinesiology and Recreation faculty and Milner Library faculty in assessing and prioritizing the kinesiology and recreation research collection, including the collection that supports the exercise science program. The committee also recognizes collaboration between the school and library to provide information fluency instruction to students in kinesiology and recreation programs, including exercise science. The committee recommends continuation of those efforts. The committee further recommends that exercise science and library faculty work together to design and implement a tiered approach to information literacy instruction in the exercise science program. Such an approach involves identifying information literacy learning goals for the program, learning outcomes associated with each goal, strategies for achieving the learning outcomes, and courses in which information literacy instruction could occur.

**Continue implementation of the student learning outcomes assessment plan.** The committee recognizes the program for developing and implementing a methodologically-sound student learning outcomes assessment plan and for periodic review of assessment findings to evaluate the need for program changes. Particularly noteworthy is use of rubrics to assess student learning and alignment of the learning outcomes across both the classroom and clinical curricula. The committee encourages the program to continue its attention to student learning outcomes assessment during the next program review cycle. The committee encourages faculty to document any changes it makes to the program based on assessment findings and the rationale for those changes.

**Continue to explore specialized accreditation for the program.** The self-study report indicates that faculty has explored accreditation of the program by the American College of Sports Medicine and has decided not to pursue that accreditation because the costs of doing so would likely outweigh the benefits to the program and its students. Recognizing the importance of credentialing in allied health professions, the committee recommends that faculty continue to explore options for specialized accreditation of the exercise science program, perhaps through the Commission on Accreditation of Allied Health Education Programs (CAAHEP). That association currently accredits 62 undergraduate exercise science programs nationwide including the exercise science program at Southern Illinois University Edwardsville. Given the competitive nature of recruiting students into undergraduate exercise science programs in the state, the committee believes further investigation of CAAHEP accreditation might be prudent.