

**NEW, REVISED, OR DELETED PROGRAM COVER SHEET**

2002-2003

**University Curriculum Committee  
Undergraduate Programs (Majors, Minors, Sequences)**DEPARTMENT/SCHOOL **School of Kinesiology and Recreation** \_\_\_\_\_ DATE **December 20, 2002****A. Proposed Action:** (more than one item may be checked if a revision).

- X** New Major CIPS CODE **\_31.0505\_** (obtain from Planning, Policy Studies and Info Systems)
- \_\_\_\_\_ New Minor CIPS CODE \_\_\_\_\_ (obtain from Planning, Policy Studies and Info Systems)
- \_\_\_\_\_ New Sequence
- \_\_\_\_\_ Change in requirements for major
- \_\_\_\_\_ Change in requirements for minor
- \_\_\_\_\_ Change in requirements for sequence
- \_\_\_\_\_ Other program revisions
- \_\_\_\_\_ More than 50% of courses in this program are distance education.
- \_\_\_\_\_ Program deletion

**B. Summary of proposed action** (see Part A), including title and exact *Undergraduate Catalog* copy for a new or altered program. (See *Catalog* and Program Checklist for format and examples.) Provide a summary of the revisions in addition to the exact current *Catalog* copy.

**Request for the Exercise Science and Fitness Sequence to be moved to an Exercise Science major. This will require the elimination of KNR Foundations of Human Movement class to be replaced by a new course KNR 164 Introduction to Exercise Science, maintaining the required hours in the School at 52 hours. An additional 3 hours will be added to the elected cognate areas, raising the total from 12 hours to 15 hours. The School semester hour requirement remains the same at 52 hours. No additional resources will be required.**

**C. Routing and action summary:**

1. _____ Department/School Curriculum Committee Chair	_____ Date Approved	4. _____ College Dean	_____ Date Approved
2. _____ Department Chair/School Director	_____ Date Approved	5. _____ Teacher Education Council Chair if appropriate (10 copies to the Dean of the College of Education)	_____ Date Approved
3. _____ College Committee Chair	_____ Date Approved	6. _____ University Curriculum Committee Chair (8 copies to the Undergraduate Studies)	_____ Date Approved

Submit 20 copies of **NEW** Undergraduate proposals to University Curriculum Committee

Submit 8 copies of **REVISED** Undergraduate proposals to University Curriculum Committee

All new and deleted programs (majors, minors, sequences) are routed by the U.C.C. to the Academic Senate. **The Senate rules mandate electronic submission (in MS Word or HTML format) of all materials for Web site posting.**

5/02

## REQUEST FOR A NEW UNIT OF INSTRUCTION

- 1. Name of Institution:** Illinois State University
- 2. Title of Proposed Program:** Exercise Science
- 3. Level of Proposed Unit:** Baccalaureate
- 4. CIPS Code:** 31.0505
- 5. Proposed Date for Enrollment of First Class:** Fall, 2004
- 6. Location Offered:** On-Campus

### Purpose: Objectives, Mission, and Priorities

#### **Introduction:**

The mission of the School of Kinesiology and Recreation is to promote physically active lifestyles and a healthy use of leisure through exemplary teaching, focused scholarship, and professional service. By providing the highest quality educational experiences to undergraduate and graduate students preparing for careers in athletic training, exercise science, physical education, and recreation, our graduates positively impact professional practices and policies, contributing to the overall wellness of society.

In 1986, a Fitness Leadership sequence was developed within the Physical Education major. In 1997, the sequence changed its name to Exercise Science and Fitness to better describe this area of study and the multiple career opportunities available to students in this field. The sequence has remained an attractive option for students majoring in Physical Education since its inception. Over the past five years, there has been an average of approximately 130 students per year who have pursued this sequence.

Through its history, the Exercise Science and Fitness sequence has evolved to provide a comprehensive knowledge base to students seeking careers in this field. Our graduates have gone on to careers in clinical settings (cardiac, pulmonary, and occupational rehabilitation), commercial settings (health clubs, personal training, equipment design and sales), corporate and worksite settings, and community settings (YMCA's, YWCA's, Park Districts, Jewish Community Centers).

In 2000, the former Department of Health, Physical Education, and Recreation changed its name to the School of Kinesiology and Recreation. Since that time, the Athletic Training sequence has changed its status from a sequence to a major. This leaves students in the current Exercise Science and Fitness sequence grouped with students in the Physical Education Teacher Education sequence under one major entitled "Physical Education". To both professionals in our field and the general public, "Physical Education" is clearly associated with teacher preparation programs and school-based careers. This is inappropriate for students in the Exercise Science and Fitness sequence who will not pursue careers in teaching. When the Exercise Science and Fitness sequence was initially developed, the term "Fitness" was retained since it was associated with the previous title for the sequence (Fitness Leadership) and because it represented the major career choice for our students. With the proposed Exercise Science major, it is desirable to drop "Fitness" from the title because our students are seeking careers in fields beyond the traditional fitness settings. Moreover, fitness is

considered just one area in Exercise Science that includes exercise physiology, biomechanics, motor learning, sport and exercise psychology, and motor development. From a marketing and student recruitment standpoint, the name Exercise Science is more consistent with names used at other institutions offering a major in this field. Having major status should help the visibility of the program and potentially positively impact student recruiting.

The current sequence has the necessary resources and physical space required to facilitate learning and discovery among Exercise Science and Fitness students. In addition, Milner Library maintains a thorough holding of books and journals specific to the needs of this sequence and the proposed change to major status and remains current through regular updates. Thus, the change to major status presented in this proposal will have no impact on Milner Library. Finally, faculty positions have been in place for several years to ensure that outstanding teaching, leadership, creativity, and scholarly inquiry, are provided to all students in the sequence. No additional resources would be needed in relation to a change from a sequence in Exercise Science and Fitness to a major in Exercise Science.

### **Exercise Science Program Philosophy**

In keeping with the missions of the institution, the college, and the school, as well as the professional goals of the program, the curriculum at Illinois State University provides an effective blend of instruction, practical experience, and exposure to research in the exercise science required courses. The Exercise Science curriculum has been designed to prepare students for careers in clinical settings, commercial settings, corporate and worksite settings, and community settings.

Courses have been developed to prepare students for certification as health/fitness professionals by organizations such as the American College of Sports Medicine, National Strength and Conditioning Association, and the American Council on Exercise. Sequence courses include exercise programming, physiological assessment, fitness management, exercise in health and disease, and instructional methods courses in aquatic and aerobic fitness, resistive exercise, and stress management. These courses build off the introductory core classes emphasizing the scientific foundation of exercise science, including anatomy, physiology, biomechanics and exercise physiology. Graduates of this sequence have pursued careers in cardiac rehabilitation, fitness/wellness programs, personal training fields, strength training, as well as continuing education opportunities at graduate and professional schools.

Current health statistics for the United States indicate the most significant underlying factor contributing to the top 10 leading causes of death is lifestyle, specifically physical inactivity and inappropriate dietary patterns (American College of Sports Medicine, 1998; Centers for Disease Control & Prevention and American College of Sports Medicine, 1993; United States Department of Health and Human Services, 2000). A plethora of studies demonstrate strong relationships between physical inactivity and the prevalence of common diseases. Given this epidemiological evidence, the need for qualified professionals in the exercise science and fitness profession continues to rapidly rise. This proposed program of study would convert a popular sequence into a major.

### **7. Student Learning Objectives**

At the conclusion of the Exercise Science major, the student will:

- A. demonstrate the knowledge, skills, and abilities of an Exercise Science Professional.

B. demonstrate the ability to assess human performance related characteristics of individuals from diverse populations.

C. 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.

D. be a proponent [and example] of leading a physically active lifestyle.

## **8. Program Contributions**

### Contributions of the Program to Students

- The curriculum will provide coursework enabling students to learn the full array of cognitive knowledge and psychomotor skills expected for careers in Exercise Science.
- Available classrooms, laboratories, and internship facilities will provide sufficient space and necessary resources for effective instruction and applicable learning within the Exercise Science curriculum.
- Provision of technological and electronic media and communication systems will enable students to access and utilize information for learning Exercise Science knowledge and competencies.
- Current publications, textbooks, and library resources pertaining to Exercise Science will be provided to students on campus.
- Curricular and career advisement will be available to Exercise Science students.
- Exercise Science students will receive continuous assessment of their academic progress in the program through evaluation of course assignments, evaluation of competencies, course grades, semester and overall grade point averages, and informal mentoring by peers, instructors, advisors, and supervisors.
- The Exercise Science curricular courses and program requirements will be continually evaluated and updated for adherence to current knowledge and practices, based on research and professional experience.
- Students will be prepared and encouraged to seek certification by the professional certification agency best representing their career choice.
- The Exercise Science curriculum will include sequential professional practice experiences for each student that requires application of knowledge and skills in a variety of activity settings.

### Contributions of the Program to University Goals

The Exercise Science program provides a small-college experience coupled with large-university opportunities. While the program is large enough to provide various specialized academic foci, a premium is placed on students receiving personalized attention. Educating Illinois is the university's strategic plan for academic distinctiveness and excellence. Educating Illinois pledges "Illinois State, is a campus dedicated to placing the learner at the center of teaching and research (Educating Illinois, 2002)." For students, the unique blend of a small-college experience with large-university opportunities is achieved by adhering to five key

University, School of Kinesiology and Recreation, and Exercise Science program values: individual attention; public opportunity; active pursuit of learning; diversity; and creative response to change. This approach to higher education ensures that graduates are thoroughly prepared for today and tomorrow's workplace challenges.

The Exercise Science program currently serves a distinct group of students in the School of Kinesiology and Recreation. The students select exercise science and fitness with the ultimate goal of seeking employment in clinical, commercial, corporate, and community settings, or as preparation for graduate and professional schools. Graduates have gained employment across the nation, providing needed services to various constituencies seeking improvement from health related fitness, sport enhancement, cardiac and pulmonary rehabilitation, or have advanced to graduate education.

### Contributions of the Program to Statewide Goals

Employability of Exercise Science students is projected to be strong indefinitely due to several factors including: 1) the unique attribute of Exercise Science students to teach safe and effective exercise practices; 2) Exercise Science emerging as a profession serves an increasingly diverse clientele; and 3) the U.S Government, through the office of the Surgeon General and Health and Human Services, the Centers for Disease Control and Prevention, and the National Institutes of Health, has expressed the vital role that physical activity plays in the prevention of disease. These same entities have reported that a significant percentage of our population is currently not active enough to attain or maintain good health.

## **Outcomes**

### **9. Student Learning Measures**

The Exercise Science program employs several indicators to measure the achievement of student learning objectives, including:

- examinations within the individual courses in the program
  - professional student portfolio used for value added assessment
  - evaluation of the capstone internship experience prior to graduation
  - success on national certification examinations after graduation
  - entry of students into respected university graduate and professional programs
  - feedback from alumni and the general public on graduate preparedness

These indicators are regularly reviewed and adjustments are made to both the emphasis placed upon course materials and the delivery methods employed by the program faculty.

### **10. Program Outcomes**

Targets have been set for each of the following indicators as a means of ensuring objectives are met:

- first time success rate on professional certification examinations: 75%
- overall success rate on professional certification examinations: 100%

- percent of graduating students who pursue employment in Exercise Science settings or seeking graduate study: 90%
- percent of students involved with faculty research projects: 20%

These indicators are evaluated annually and shared with program faculty and the school administration. The first three items will be evaluated through alumni survey. In cases when the benchmark is set below 100%, upward adjustment is made once that goal has been achieved. Modifications in curriculum and instruction will be made as indicated to assist students in attaining these outcomes.

## 11. Curriculum

### Catalog Description including Admission and Retention Requirements

#### Exercise Science Major

##### Selective Admission:

In addition to fulfilling University requirements for admission to the Exercise Science program, the student must meet the following criteria:

1. A minimum 2.5 cumulative and major GPA.
2. Participation in a personal interview as requested by the Program Director of Exercise Science.

Students who fail to meet all requirements for admission to the Exercise Science program may petition through the Exercise Science Committee to Consider Special Admittance.

##### Exercise Science Program Curriculum:

- 52 hours in the following KNR core and Exercise Science courses required:
  - 20 hours in core courses: KNR 181, 182, 240, 254, 257, 280, 282;
  - 22 hours in major courses: KNR 164, 154.40, 281, 283, 285, 298.10, 307, 308, 309, 310, 378.10.
  - 10 hours in KNR 398.11.
- 15 hours of courses must be selected from cognate groups (Biomechanics, Clinical [diseased] Populations, Technology, Business Administration, Nutrition, Aging, Research, Sport and Exercise Psychology, Pre-professional [physical therapy and occupational therapy] preparation courses) with the requirement that at least two courses be taken from at least one cognate area.

##### Selective Retention:

Once admitted to the Exercise Science major, the student must maintain a minimum 2.5 cumulative GPA as well as a 2.5 major GPA. A student falling below the required GPA will be placed on probation for one semester. If after one semester, the 2.5 GPA has not been re-established, the student will be dropped from the Exercise Science major.

A student who has not been retained in the program, may reapply for admission to the Exercise Science major after meeting all of the criteria again. The student who is not readmitted after one semester of probation and has a minimum 2.0 GPA will have the choice to enter the Physical Education Studies sequence.

### Credentialing Opportunities:

There is no single professional credential, or certification, that is necessary to pursue a career in Exercise Science. However, there are a number of optional credentialing opportunities that students are encouraged to examine. Coursework in this major is focused on the content areas needed for certification preparation by several organizations in this professional field of study. Student graduating in this major can strengthen their professional credentials by pursuing a variety of different certifications offered by organizations such as the American College of Sports Medicine and the National Strength and Conditioning Association. Students interested in learning more about these recommended certification options should consult the Exercise Science Program Director in the School of Kinesiology and Recreation for further information.

## 12. Instructional Practices

Several strategies are in place to promote effective student learning in the Exercise Science Program. Foremost is an effective student to faculty ratio. Students receive instruction within the program from eleven faculty. The faculty carefully develop course syllabi, course content, and content delivery systems to ensure quality teaching for the diverse population of students. Students benefit from the personal attention and are further encouraged to interact with one another throughout the curriculum. The faculty incorporate a team approach to curriculum management to ensure that the required knowledge, skills, and abilities are included and that there is smooth progression from foundation knowledge to advanced synthesis and evaluation.

Timely feedback is crucial to the learning process and this strategy is the rule rather than the exception. Evaluated materials are returned to students at the next scheduled class meeting in most cases, and not more than two weeks from submission in the case of lab reports and term projects. This enables students to learn from mistakes and sufficient time is available for remediation if necessary.

The curriculum is designed to provide students with an overview of the professions included under the umbrella of Exercise Science. The professional practice sequence includes three components: freshman/sophomore observation hours, a sophomore/junior practicum, and a senior internship. Initial exposure to various health fitness professions is gained early in the plan of study through 100 hours of shadowing professionals in a minimum of three different settings. During their sophomore or junior year, students engage in a 50-hour practicum that requires them to perform practical skills under the supervision of a qualified practitioner. The capstone experience is a senior internship requiring the students to assume, full time, 40 hours per week for a duration of 12 weeks, those responsibilities determined by practitioners in that setting to be appropriated for an intern.

Further strategies to enhance student learning include the activities of the Leaders In Fitness Education (LIFE) Club at Illinois State University. The LIFE Club meets twice a month. Activities include guest speakers to provide career and professional advice, an annual trip to the Greater Chicago Area to visit potential internship and employment sites, and the annual Walk for LIFE campus event designed to promote the value of physical activity and its relationship to health.

Upon conclusion of their senior internship, students return to campus for a final seminar. As a part of the seminar, pending graduates deliver an oral presentation to faculty and underclass students remarking not only on their professional practice experience, but also on the curriculum that prepared them for this capstone

activity. This process allows senior students to mentor underclassmen and creates a timely forum for faculty to receive feedback regarding currency and appropriateness of the curriculum.

## Resources

### 13. Tables on Student Demand

STUDENT DEMAND FOR THE NEW PROGRAM

	Budget Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year
Number of Program Majors (Fall Headcount)	130	130	130	130	130
Annual Full-Time-Equivalent Majors	130	130	130	130	130
Annual Credit Hours in EXISTING Courses <sup>1</sup>	7570	7750	7750	7750	7750
Annual Credit Hours in NEW Courses <sup>1</sup>	180				
Annual Number of Degrees Awarded	35	35	35	35	35

<sup>1</sup>Include credit hours generated by both majors and non-majors in courses offered by the academic unit directly responsible for the proposed program.

Any impact of the budget associated with the transition from a sequence to a major will be minimal. No new faculty or facilities are required. Current faculty will be able to cover the one additional class required in the proposed major by shifting the current offering of existing courses. There is no major anticipated fluctuation in the number of students from the current sequence to the proposed major.

TOTAL RESOURCE REQUIREMENT FOR THE NEW PROGRAM

		Budget Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year
1	Total Source Requirements	\$474,110				
2	Resources Available from Federal Sources	0				
3	Resources Available from Other Non-State Sources	0				
4	Existing State Resources	\$474,110				
5	State Resources Available through Internal Reallocation	0				
6	New State Resources Required (line 1 minus the sum of 2 through 5)	0				
	Breakdown of New State Resources Required for Budget Year:					
7	F.T.E. Staff	0				
8	Equipment and Instructional Materials	0				
9	Library	0				
10	Contractual Services	0				
11	Other Support Services	0				

### 14. Quality Assurance Processes

In the case of the Exercise Science Program, autonomy exists for the program to develop its own curriculum, although the knowledge, skills, and abilities required for certification and employment guide the program. We have established a University partnership with the American College of Sports Medicine (ACSM) and will seek endorsement from ACSM for our curriculum once that becomes available.

#### Alignment with regional and statewide needs:

Illinois State University (ISU) has a long history of educating students in exercise science, fitness leadership, and physical education (from which exercise science evolved). ISU provides exercise science and fitness graduates to both state and regional employers. The program boasts a large alumni pool employed at various levels including colleges and universities, hospitals, rehabilitation clinics, corporate fitness centers, health clubs, and community fitness centers. In addition, several graduates have established national recognition by working with elite athletes from the United States Olympic Team, National Football League, Professional Tennis Association, NASCAR, etc. Each year there are more opportunities for exercise science graduates becoming available as the importance of leading a physically active lifestyle in the prevention and rehabilitation from disease become known.

#### Teaching effectiveness and course evaluation:

The College of Applied Science and Technology and the School of Kinesiology and Recreation require that the students evaluate all courses each semester. In addition, faculty in the School of Kinesiology and Recreation undergo peer review each year during the probationary period and every five years thereafter. Several faculty members have been awarded college, university, and national professional association awards in teaching. As the American College of Sports Medicine enacts its curricular endorsement program, we will seek that recognition.

#### Curriculum development and sequencing of the courses:

The content of the curriculum is partially influenced by the knowledge, skills, and abilities expected by the professional certifying agencies. Other input comes from the Exercise Science faculty, the Exercise Science Advisory Committee, and the individual course instructor. The Exercise Science Advisory Committee is a group of individuals who currently are employed in exercise science professions. Some are alumni of our program, while others are supporters of our program. They are invited to campus twice a year to meet with students and faculty, and to provide feedback on how well our students are being prepared. In accord with the tenet of academic freedom, delivery of the content, including portioning of content into courses and sequencing of the courses is left to the discretion of the Exercise Science faculty. The curriculum is reviewed and carefully scrutinized through regular programmatic review.

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### Monitoring of student progress:

A close relationship exists between the academic advisement office in the School of Kinesiology and Recreation and the Exercise Science Program. Grade point average data, individual course grade information, and other data are regularly shared between the advisors and Exercise Science Program Director to monitor student progress. The advisement office also ensures that the students adhere to a sequencing of classes. The Exercise Science Program is designed as a series of steps so that each semester builds upon existing knowledge and skills acquired during previous semesters. If student progress is derailed in any way, the student is held from the progression of courses and will subsequently have a semester added to the program. This is stipulated in the university catalog.

### Faculty qualifications and reward structures:

Faculty in tenure-track positions must hold a terminal degree. Faculty in non-tenure track positions must hold a minimum of a master's degree. All faculty are evaluated on an annual basis to determine merit pay raises and tenure-track faculty are further evaluated to determine tenure and promotion decisions.

### Occupational and student demand for the program:

The field of Exercise Science has exploded since the early 1980's. Our students are in demand in a variety of professional settings. Typically, our students go on to careers in corporate, clinical, commercial, and community fitness fields. Additionally a significant number go on for further professional training in medicine, physical therapy, and graduate school. Since 1995, the number of students enrolled each year in the Exercise Science and Fitness sequence has grown from 70 to 130.

### Faculty development that encourages quality teaching:

All faculty in the School of Kinesiology and Recreation are encouraged to pursue activities for continuing professional growth. In accordance with ASPT guidelines, all faculty are evaluated annually in regard to their achievements in teaching, scholarship, and professional service. Development of excellence in teaching is promoted through the University's Center for the Advancement of Teaching (CAT), which assists faculty in teaching techniques, offers faculty funding for teaching conferences, and assists in providing teaching resources. All tenure-track faculty are assigned each semester to quarter-time release for scholarly research. Continuous completion and dissemination of scholarship by faculty contribute to the granting of promotion, tenure, and meritorious salary increments. Professional service, as a member of school, college, and/or university committees, and as an active participant in professional organizations such as the ACSM, is expected of all faculty. Limited travel funds are available from the school, college and university for professional development and conferences, based on adherence to application and selection criteria from each allocation resource.

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### Program review process:

The University, the College of Applied Science and Technology, and the School of Kinesiology and Recreation require that curricula be evaluated on an on-going basis. The Exercise Science Advisory Council also provides feedback every semester on suggestions to improve the curricula. Feedback is also gathered from

our interns and their internship supervisors about the program. In addition, faculty in the School of Kinesiology and Recreation perform reviews each year of the curricular offerings. As the American College of Sports Medicine enacts its curricular endorsement program, that recognition will be sought. The curriculum was developed with a focus on the recommended knowledge, skills, and abilities as outlined by national professional organizations in mind.

Use of assessment results, program reviews, and accreditation to improve the program:

The process of self-study and annual review permits a mechanism for regular validation of program goals and objectives. The program faculty also convenes on a monthly basis to discuss the success of the program and to entertain potential adjustments to the curriculum to enhance the program and opportunities for the students.

Expected Curricular Changes Including New Courses: One course currently offered in the Kinesiology core (KNR 160 Foundations of Human Movement) will be dropped and replaced by a new course (KNR 164 Introduction to Exercise Science) within the major core. The curriculum guidelines for the major will provide suggestions for the students in the selection of supporting course electives. One additional 3-credit hour course will be required in supporting courses raising the total number of supporting course hours to 15 from the current requirement of 12 hours, and the supporting course structure will be re-arranged into cognate areas. This will be done to provide better career direction for students in the selection of their supporting courses. The major would, therefore, require 3-credit hours beyond what is now required in the ESF sequence.

ILLINOIS STATE UNIVERSITY  
SCHOOL OF KINESIOLOGY AND RECREATION

Proposed Catalog Copy for the  
Exercise Science Major  
2004-2005 Catalog

**Exercise Science Program**

Degree Offered: B.S.

## Major in Exercise Science

### Selective Admission:

In addition to fulfilling University requirements for admission to the Exercise Science program, the student must meet the following criteria:

1. A minimum 2.5 cumulative and major GPA.
2. Participation in a personal interview as requested by the Program Director of Exercise Science.
3. Students who fail to meet all requirements for admission to the Exercise Science program may petition through the Exercise Science Committee to Consider Special Admittance.

### Exercise Science Program of Study:

--67 total hours required.

--52 hours in the following core and major courses required:

--20 hours in core courses: KNR 181, 182, 240, 254, 257, 280, 282;

--22 hours in major courses: KNR 164, 154.40, 281, 283, 285, 298.10, 307, 308, 309, 310, 378.10.

--10 hours in KNR 398.11.

--15 hours of courses must be selected from cognate groups (Biomechanics, Clinical [diseased] Populations, Technology, Business Administration, Nutrition, Aging, Research, Sport and Exercise Psychology, Pre-professional [physical therapy and occupational therapy] preparation courses) with the requirement that at least two courses be taken from at least one cognate area.

### Selective Retention:

Once admitted to the Exercise Science major, the student must maintain the following requirements:

1. A minimum 2.5 cumulative GPA as well as a 2.5 major GPA.
2. A student falling below the required GPA will be placed on probation for one semester. If after one semester, the 2.5 GPA has not been re-established, the student will be dropped from the Exercise Science major.
3. A student who has not been retained in the program, may reapply for admission to the Exercise Science major after meeting all of the criteria again. The student who is not readmitted after one semester of probation and has a minimum 2.0 GPA will have the choice to enter the Physical Education Studies sequence.

### Credentialing Opportunities:

There is no single professional credential, or certification, that is necessary to pursue a career in Exercise Science. However, there are a number of optional credentialing opportunities that students are encouraged to examine. Coursework in this major is focused on the content areas needed for certification preparation by several organizations in this professional field of study. Students graduating in this major can strengthen their professional credentials by pursuing a variety of different certifications offered by organizations such as the American College of Sports Medicine and the National Strength and Conditioning Association. Students interested in learning more about these recommended certification options should

consult the Exercise Science Program Director in the School of Kinesiology and Recreation for further information.

\*Contingent upon this proposal being accepted, the Exercise Science and Fitness Sequence will need to be eliminated.

**EXERCISE SCIENCE MAJOR  
SCHOOL OF KINESIOLOGY AND RECREATION**

**COMPARISON OF CURRENT AND PROPOSED REQUIREMENTS**

All proposed changes have been highlighted

**Current Sequence:**

45 hours in General Education  
 52 hours in KNR required:  
 23 hours in KNR core courses  
     KNR 160, 181, 182, 240, 254, 257, 280, 282  
 29 hours required in Sequence  
     1 hr. KNR 154.40 Stress Management  
     1 hr. KNR 281 Aerobics Instr. Meth.  
     1 hr. KNR 283 Aquatic Fitness Instr. Meth.  
     1 hr. KNR 285 Resistive Training Instr. Meth.  
     2 hr. KNR 298.10 Professional Practice  
     3 hr. KNR 307 Exercise in Health and Disease  
     3 hr. KNR 308 Exercise Programming  
     3 hr. KNR 309 Physiological Testing  
     2 hr. KNR 310 Fitness Management  
     2 hr. KNR 378.10 Seminar in Professional Practice  
     10 hr. KNR 398.11 Professional Practice Internship

12 hours in Support Course Requirements  
 hours in FCS 102 Nutrition in the Life Span  
 3 hours from Elective Group 1 – Health & Disease  
 3 hours from Elective Group 2 – Aging  
 3 hours from Elective Group 3 – Technical Skills

109 hours

**UNIVERSITY STANDARDS FOR PROPOSED MAJOR**

112 No more than 124 semester hours of coursework  
52 Require no more than 55 semester hours in major department  
0 May mandate no more than 24 hours in General Education.

**Proposed Major: Fall 2004**

45 hours in General Education  
 52 hours in KNR required:  
 20 hours in KNR core courses  
     181, 182, 240, 254, 257, 280, 282  
 32 hours required in major  
     1 hr. KNR 154.40 Stress Mgt  
     3 hr. KNR 164, Introduction to Exercise  
             Science  
     1 hr. KNR 281 Aerobics Instr. Meth.  
         1 hr. KNR 283 Aquatic Fitness Instr. Meth.  
     1 hr. KNR 285 Resistive Training Instr. Meth.  
     2 hr. KNR 298.10 Professional Practice  
     3 hr. KNR 307 Exercise in Health & Disease  
     3 hr. KNR 308 Exercise Programming  
         3 hr. KNR 309 Physiological Testing  
         2 hr. KNR 310 Fitness Management  
     2 hr. KNR 378.10 Seminar in Professional Practice  
     10 hr. KNR 398.11 Professional Practice  
         Internship

15 hours of courses areas must be selected 3  
 from cognate groups (Biomechanics,  
     Clinical [diseased] Populations, Technology,  
     Business Administration, Nutrition, Aging,  
     Research, Sport and Exercise Psychology,  
     Pre-professional [physical therapy and occupational  
     therapy] preparation courses) with the requirement that  
 at least two courses be taken from at least one cognate  
 area. \_\_\_\_\_

112 hours

**Exercise Science and Fitness Major  
School of Kinesiology and Recreation  
Checklist of Courses**

**General Education** = 45 credit hours

**Kinesiology Core** = 20 credit hours

KNR 181	Anatomy and Physiology	3 cr
KNR 182	Anatomy and Physiology	3 cr
KNR 240	Principles and Application of Fitness Training	2 cr
KNR 254	Soc-Psy Perspective of Physical Activity	3 cr
KNR 257	Motor Learning	3 cr
KNR 280	Exercise Physiology	3 cr
KNR 282	Biomechanics	3 cr

**Exercise Science Major Coursework = 32 hours**

KNR 154.40	Stress Management Instructional Methods	1 cr
KNR 164	Introduction to Exercise Science	3 cr
KNR 281	Aerobics Instructional Methods	1 cr
KNR 283	Aquatic Fitness Instructional Methods	1 cr
KNR 285	Resistive Training Instructional Methods	1 cr
KNR 298.10	Professional Practice	2 cr
KNR 307	Exercise in Health and Disease	3 cr
KNR 308	Exercise Programming	3 cr
KNR 309	Physiologic Testing	3 cr
KNR 310	Fitness Management	2 cr
KNR 378.10	Seminar in Professional Practice	2 cr
KNR 398.11	Professional Practice Internship	10 cr

**Approved Professionally Related Courses = 15 hours**

15 hours of courses must be selected from cognate groups (Biomechanics, Clinical [diseased] Populations, Technology, Business Administration, Nutrition, Aging, Research, Sport and Exercise Psychology, Pre-professional [physical therapy and occupational therapy] preparation courses) with the requirement that at least two courses be taken from at least one cognate area.

## References

- American College of Sports Medicine. (1998). The recommended quality and quantity of exercise for developing and maintaining fitness in healthy adults. *Medicine and Science in Sports and Exercise*, 22, 265-274.
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Date: 1/29/2003

## **PART A: New Program Description and Explanations**

Institution: Illinois State University

Responsible Department or Administrative Unit: School of Kinesiology and Recreation

Proposed Program Title: Exercise Science

Previous Program Title: N/A

CIPS Classification: 31.0505

Date of Implementation: Fall, 2004

Description of Proposed Program or Name Change: Reference attached IBHE Proposal under **Purpose: Objective, Mission, Priorities**

Rationale for Proposal: The current Exercise Science and Fitness sequence is the academic concentration for more than 130 students pursuing a bachelor's degree in Physical Education at Illinois State University. Eleven faculty from the School of Kinesiology and Recreation teach courses within the Exercise Science and Fitness sequence (ESF) and the Physical Education core. Through several noteworthy accomplishments, these faculty and their students have begun to establish Exercise Science and Fitness at Illinois State University as a premier area of study. Converting the ESF sequence to an Exercise Science major will further enhance the reputation of the students, faculty, school and university in several ways.

### Student and Faculty Benefits

1) Students will be more marketable when Exercise Science is listed as the major on their transcripts and resumes. Increased specialization within the fields of Kinesiology and Recreation has resulted in more clearly defined study options. In the highly competitive marketplace, employment candidates are more heavily scrutinized for specialization within their academic preparation and practical experiences. The generic title of Physical Education is no longer acceptable to many employers seeking to fill positions in health-related fitness, sports medicine, or sport enhancement settings. Student marketability will be significantly enhanced with *Bachelor of Science in Exercise Science* appearing on their transcripts, rather than the current designation of *Physical Education*. Most students currently treat the sequence as a major and refer to their "major" as Exercise Science.

2) Students, faculty, and the institution will benefit by elevating Exercise Science to major status rather than remaining a sequence as we seek program endorsement. The major will conform to the guidelines for professional preparation programs as outlined through several professional organizations including the American College of Sports Medicine (ACSM), the National Strength and Conditioning Association (NSCA), and the American Alliance for Health, Physical Education, Recreation, and Dance (AAHPERD). Additionally, the American College of Sports Medicine is in the preliminary stages of developing an endorsement program to evaluate and endorse universities' curriculum in relation to coverage of the Knowledge, Skills, and Abilities of their certification areas. We intend to seek this endorsement.

3) Faculty will be benefited through association with an Exercise Science major when applying for grants from agencies seeking a strong science orientation to Kinesiology. The Exercise Science major will also attract more focused students and an elevated national recognition that will further benefit faculty.

#### School and University Benefits

- A. By providing better-prepared professionals in industries related to health and fitness, the proposed major addresses state needs by responding to the Illinois Board of Higher Education goals #1 and #5 as found in *The Illinois Commitment Partnerships, Opportunities and Excellence (Illinois Commitment)*.
- B. This proposed major addresses university needs by meeting the challenge in *Educating Illinois: An Action Plan for Distinctiveness and Excellence at Illinois State University 2000-2007 (Educating Illinois)* by addressing issues of distinctiveness and excellence, interdisciplinary collaboration, and the use of a professional practice experience.
- C. Careful planning of the major has resulted in effective use of institutional resources. Curricular modifications to elevate Exercise Science and Fitness from sequence to major status require the addition of one new course (KNR 164 Introduction to Exercise Science will replace KNR 160 Foundations of Physical Education). This course will also be moved into the Exercise Science major core. The other change will be in support course requirements. Currently students in the ESF sequence select 9 hours from three elective groups (Health & Disease, Aging, Technical Skills) and 3 hours in nutrition (FCS 102). The major will require 15 hrs in elected cognate areas designed to prepare students for their intended area of employment. These cognate areas may be selected from several elective groups (Biomechanics, Clinical [diseased] Populations, Technology, Business Administration, Nutrition, Aging, Research, Sport and Exercise Psychology, Pre-professional [physical therapy and occupational therapy] preparation courses) with the requirement that at least two courses be taken from at least one cognate area.

If for Teacher Education, include reference to COE Conceptual Framework: N/A

Expected Impact of Proposal on Existing Campus Programs: Exercise Science and Fitness has been a sequence in the School of Kinesiology and Recreation (formerly the Department of Health, Physical Education, and Recreation) since 1986, initially as a sequence in Fitness Leadership. As this proposal seeks to change the existing sequence to a self-standing major with only minor changes, there will be no impact on existing programs.

Expected Curricular Changes Including New Courses: One course currently offered in the Kinesiology core (KNR 160 Foundations of Human Movement) will be dropped and replaced by a new course (KNR 164 Introduction to Exercise Science) within the major core. The curriculum guidelines for the major will provide suggestions for the students in the selection of supporting course electives. One additional 3 credit hour course will be required in supporting courses raising the total number of supporting course hours to 15 from the current requirement of 12 hours, and the supporting course structure will be re-arranged into cognate areas. This will be done to provide better career direction for students in the selection of their supporting courses. The major would therefore require 3 credit hours beyond what is now required in the ESF sequence. The complete current sequence and the proposed major are described in the accompanying materials under **Current and Revised Catalog Copy**.

Milner Contacted to Determine Sufficient Resources: The sequence has been in place since 1986. The change to a major has no impact on current or future library holdings.

Anticipated Staffing Arrangements: Remain the same as for the existing sequence.

Anticipated Funding Needs and Source of Funds: Remain the same as for the existing sequence.

## **PART B: Other Requirements**

Refer to **Checklist**. The proposal is for a change of an existing sequence to a major with minor curricular revisions and a 3 credit hour increase in credit hours.

### **Proposed Cognate Areas**

The following courses are listed as electives from which the Exercise Science major can choose for their cognate areas. Please check with your academic advisor in the School of Kinesiology and Recreation and, if applicable, any graduate school you may be considering in selecting courses appropriate for your career goals. Fifteen hours of electives are required, with a minimum of two courses elected from at least one of the cognate areas. Any course used to satisfy General Education requirements cannot be used as a cognate area elective. Please consult your catalog regarding pre-requisites for listed classes.

#### **Pre-Professional (Physical Therapy, Occupational Therapy, Chiropractic)**

HSC 105 Medical Terminology  
BSC 101 Fundamental Concepts in Biology  
BSC 145 Human Biology  
BSC 160 Microbiology and Society  
BSC 170 Genetics and Society  
KNR 353 Basic Electrocardiography and Clinical Exercise Testing  
PHY 108 College Physics I  
PHY 109 College Physics II

MAT 105 Elementary Applications of Math  
MAT 121 Applied Calculus  
MAT 145 Calculus I  
PSY 110 Explaining Human Behavior  
CHE 110/112 Fundamentals of CHE w/lab  
CHE 140 General Chemistry I  
CHE 141 General Chemistry II  
CHE 204 Chemistry of Life  
CHE 220 Elementary Organic Chemistry  
CHE 230 Organic Chemistry I  
CHE 242 Basic Biochemistry  
PSY/POS/GEO/ECO 138 Social Science Reasoning Using Statistics

· **Biomechanics**

KNR 342 Occupational Biomechanics  
KNR 352 Quantitative Analysis of Biomechanics  
ACS 169 Computer Application and Development  
MAT 131 Geometric Reasoning  
MAT 145 Calculus  
MAT 146 Calculus II  
PHY 110 Physics for Science & Engineering  
PHY 152 Statistics  
PHY 220 Mechanics I

· **Clinical (Diseased Populations)**

PSY 340 Statistics for the Social Sciences  
HSC 105 Medical Terminology  
HSC 145 Environmental Health Practice  
HSC 156 Environmental Health  
HSC 160 Clinical Laboratory Science  
HSC 201 Pathophysiology I  
HSC 202 Pathophysiology II  
HSC 204 Health Data Analysis  
HSC 258 Epidemiology  
HSC/KNR 390 Drugs and Society  
KNR/HSC/FCS 208 Dynamics of U.S. Contemporary Health Issues  
KNR 255 Lifestyle Issues for People with Disabilities  
KNR 353 Basic Electrocardiography and Clinical Exercise Testing  
SOC 275 Social Statistics  
SOC 311 Issues in Gerontology  
BSC 160 Microbiology and Society  
BSC 170 Genetics and Society

· **Nutrition**

FCS 102 Nutrition

FCS 315 Nutrition for Health & Fitness

FCS 317 Nutrition and Metabolism

- **Sport and Exercise Psychology**

KNR 289.43 Legal Aspects of Sport  
KNR 304 Teaching of Sports  
KNR 306 Psychology of Sport  
KNR 317 Sociology of Sport  
KNR 320 Developmental Aspects of Sport  
PSY 110 Explaining Human Behavior  
PSY 231 Research Methods in Psychology  
PSY 303 Adult Development & Aging  
PSY 304 Gerontological Psychology  
PSY 305 Psychology of Women  
PSY 333 Behavior Modification  
PSY 350 Psychopathology  
PSY 363 Physiological Psychology  
PSY 364 Motivation

- **Technology**

ACC 166 Business Info Systems  
ACS 115 Reasoning about Complex Systems  
ACS 150 Microcomputer Productivity Tools  
ACS 155.01 Intro to Microcomputers  
ACS 155.02 Intro to Microcomputers  
ACS 160 Foundations of Applied Comp Sci  
  
ACS 168 Problem Solving Using Computers  
ENG 249 Technical Writing I  
MQM 100 Statistical Reasoning  
MQM 140 Intro to Business Communication  
ECO 138 Social Science Reasoning Using Statistics.  
IDS 265 Introduction to Cognitive Science  
TEC 275 Technology and Quality of Life

- **Administration/Business**

KNR 289.43 Legal Aspects of Sport  
ACC 131 Financial Accounting  
ACC 132 Managerial Accounting  
FIL 208 Legal Environment of Business  
FIL 240 Business Finance  
MKT 230 Introduction to Marketing  
MQM 100 Statistical Reasoning  
MQM 140 Intro to Business Communication

MQM 220 Business Organization & Mgmt      MQM 225 Introduction to Small Business  
ECO 103 Individual and Social Choice  
ECO 105 Principles of Economics  
ECO/POS/PSY/GEO 138 Social Science Reasoning Using Statistics

### **Aging**

PSY 113 Development Through Life Span  
PSY 303 Adult Aging  
PSY 304 Gerontological Psychology  
SOC 211 Social Gerontology  
SOC 311 Issues in Gerontology  
KNR 255 Lifestyle Issues for People with Disabilities  
KNR/HSC/FCS 208 Dynamics of U.S. Contemporary Health Issues  
KNR/HSC/FCS 394 Health Aspects Aging

**Research**

KNR 287 Independent Study

KNR 299 Independent Study (Honors)

SOC 275 Social Statistics

MQM 100 Statistical Reasoning

ECO/POS/PSY/GEO 138 Social Science Reasoning Using Statistics

PSY 231 Research Methods in Psychology

PHY 152 Statistics