

Exercise Science

Professors Julie M. Johnson (*Chair*), Ronald Ernst;
Associate Professors Richard Coles, Robert G. Gillespie;
Assistant Professor John P. Dinegan;
Instructors Rebecca Carstensen, Eric Cruise;
Athletic Trainer Brian Azinger

Departmental Mission Statement The Exercise Science department develops students' physical, social, personal, and intellectual capacities for application toward lifetime professional activities. The close interaction of faculty and students challenges the development of a rich base of knowledge and skills that are ethically applied in a variety of practical settings.

Communicating Plus: Exercise Science. The student learning goals of the Communicating Plus Program are emphasized across the classroom portion of the Exercise Science major's curriculum. However, two classes have been designed specifically to begin and conclude the major with emphasis on the Communicating Plus skills areas. All Exercise Science majors begin their course work with Exercise Science 201, Communication in Exercise Science, which emphasizes the skills of writing, speaking, critical thinking, and problem solving. Students conclude the major with Exercise Science 500, Senior Studies, where they demonstrate their mastery of the Exercise Science education knowledge base and competence in the Communicating Plus student learning goals through completion of a semester long, faculty directed research project.

Requirements for a major in Exercise Science-School Based Physical Education Licensure: Forty credits in the department, including Exercise Science 201, 211, 220, 241, 251, 253, 260, 270, 271, 320, 333, 340, 426, 432, 450, and 500. Biology 211 is a prerequisite for Exercise Science 333 and 432.

The major, coupled with the proper Educational Studies sequence of courses, leads to licensure in the State of Wisconsin for teaching at all grade levels from elementary through high school. Contact the Educational Studies Department for additional teaching licensure requirements.

Courses at the 100 level may be counted toward the major by prior consent from the department chair.

Community and Recreation Physical Education: Thirty-four credits including: Exercise Science 201, 211, 220, 281, 291, 333, 340, 432, 441, 450, 500; plus six credits from the following: Exercise Science 232, 251, 253, 260, 270, 271, 321, 322, 324, 352; Philosophy 286. Biology 211 is a prerequisite for Exercise Science 333 and 432.

Athletic Training: Forty-two credits including: Exercise Science 201, 211, 232, 333, 361, 362, 412, 432, (2) 441 (2 different practicum courses), 451, 501; Biology 211, 312. In addition, a student majoring in Exercise Science with an emphasis in Athletic Training would need to complete 800 hours of clinical work under the direct supervision of a certified trainer. Applicants for the Athletic Training program should contact Brian Azinger at the Storzer Center.

Sports Management: Thirty-seven credits including: Exercise Science 201, 220, 281, 421, (2) 441 (2 different practicum courses), 450, 500; Economics 212, plus four courses from the following at least two of which must be from the 300 level or higher: Leadership Studies 100; Business Administration 131, 208, 310, 315, 413; Economics 211, 321; Psychology 225.

Requirements for a Health Minor: the following courses are required for a health minor: Exercise Science 221, 231, 232, 342, 344, and Biology 211. In addition, one more course may be chosen from the following: Psychology 221, 235, 242; Sociology 110 or 302. For a teaching minor, one additional course is necessary from the elective group.

Requirements for coaching certification: The following courses are required to complete a coaching certification program: Exercise Science 211, 324, 333, 352, 432, 441, 450; and Biology 211.

The wellness requirement for graduation may be fulfilled by one credit selected from the following courses: Exercise Science 111, 112, 113, and 114. No more than four credits in 111 and 112 may be counted toward graduation. No activity which has been passed may be repeated for credit.

Students may become exempt from part or all of the physical wellness graduation requirement by passing proficiency examinations. One semester of exemption will be allowed for each examination passed. If students fail a particular examination, they will not be permitted to repeat it in the same semester. The proficiency level for an exemption is comparable to the C+ level of performance at the completion of a regular course in the activity. Students who wish to fulfill all or part of the wellness requirement by passing proficiency tests, must do so by the end of the junior year. Medical excuses used for exemption must be approved by the department chair.

Explore Curriculum Goals for Exercise Science Exercise Science strives to develop skills in physical activities and knowledge of the relationships among lifetime physical activity, physical fitness, and healthy lifestyles. Therefore, courses fulfilling the wellness requirement have the following learning goals:

1. engage in physical activities for lifetime health and recreation;
2. acquire knowledge about physical activities, including rules and regulations, for lifetime health and recreation.

111, 112. Wellness Activities

Staff

One credit each semester.

Activities include badminton, basketball, exercise programs, handball, golf, jogging, racquetball, swimming, tennis, volleyball, weight training, aerobic dance, and line dancing. Development of skill and acquisition of related knowledge are basic objectives in each activity. No activity which has been passed may be repeated for credit. *Grading is Pass-Fail.* Please note that some activities classes require the purchase of equipment at the student's expense.

113, 114. Adapted Physical Education

Staff

Two credits.

Restricted and modified activities for students who are physically unable to participate in the regular required program.

201. Communication in Exercise Science

Johnson/Dinegan

Two credits. Offered fall semester.

Emphasis on the development and improvement of oral and written communication, critical thinking, and problem-solving skills. In addition, time will be spent on technological communication skills and their role in physical education.

211. Athletic Training

Azinger

Three credits. Offered fall semester.

Introduction of sports medicine including the occurrence of injury and the process of healing. Special emphasis will be given to common injuries to the leg, foot, hip, shoulder and head. Assessment and injury evaluation are also included. American Red Cross adult CPR certification is included. Activity fee will be applied to the CPR section of the course.

220. Foundations of Physical Education

Dinegan

Three credits. Offered spring semester.

Survey of the historical, psychological, and sociological bases of modern physical education. Additional emphasis is placed on career and professional opportunities.

221. Drugs, Alcohol, and Tobacco

Staff

Two credits. Offered in 2009-10, 2011-12, and 2012-13.

Drugs, alcohol, and tobacco and their impact on the user as well as society as a whole. Emphasis is given to both the immediate as well as long-range effects of these drugs.

231. Health and the Consumer

Staff

Two credits. Offered in 2009-10 and 2011-12.

Health services and products and their impact on the consumer. Emphasis is given to medical care, health insurance, quackery, and consumer protection.

232. Personal and Community Health Problems

Ernst

Four credits. Offered in 2010-11 and 2012-13.

Major health problems in the community; personal hygiene and the means of promoting healthful living.

241. Physical Education in the Elementary School

Dinegan

Three credits. Offered fall semester.

Emphasis upon perceptual-motor activities, movement education, gymnastics, rhythms and games, and the relationship of each to meaningful curriculum development.

- 251. Fundamental Sports Skills I** **Dinegan**
Two credits. Offered in 2010-11 and alternate years.
Analysis of the basic skill techniques used in basketball, baseball, softball, and track and field. Methods of presenting the various skills and drills for practicing them are included.
- 252. Fundamental Sports Skills II** **Ernst**
Two credits. Offered in 2009-10 and 2011-12.
Analysis of the essential skills used in football and wrestling. Specific teaching techniques and drills are included.
- 253. Rhythms and Dance** **Dinegan**
Two credits. Offered each spring semester.
Consideration of a variety of types of dance including folk, social, modern, and aerobic. Emphasis will be given to theory and technique development.
- 260. Methods and Techniques in Soccer, Badminton, and Tennis** **Dinegan**
Two credits. Offered in 2009-10 and alternate years.
Study of teaching methods, skill techniques, and evaluation procedures for each activity.
- 270. Methods and Techniques in Golf and Volleyball** **Johnson/Staff**
Two credits. Offered in 2009-10 and alternate years.
Consideration of the major aspects of both sports from the standpoints of the learner, the teacher, and the coach.
- 271. Fundamental Skills in Gymnastics and Swimming** **Coles**
Two credits. Offered in 2010-11 and alternate years.
Study and application of the skill techniques, teaching methods, and scientific principles related to gymnastics, tumbling, swimming, and diving. One-half of the semester will be devoted to gymnastics and tumbling and one-half to swimming and diving.
- 281. Exercise Testing and Prescription** **Johnson**
Two credits. Offered in 2010-11 and alternate years.
Introduction to testing for physical fitness and programming. There is additional emphasis on appropriate fitness prescription for exercise and rehabilitation through individual assessment.
- 285. Selected Court Games** **Staff**
Two credits.
Introduction to handball, paddleball, paddle tennis, aerial tennis, and deck tennis. Techniques, drills, and methods of adapting the games to a variety of situations are included.
- 291. Community Recreation** **Dinegan**
Two credits. Offered in 2009-10, 2011-12, and 2012-13.
Theoretical framework for analysis of orderly and consistent planning of community park and recreation services. The course examines techniques used to acquire, develop, and administer park and recreation resources, facilities, and programs.
- 300. Departmental Studies** **Staff**
Two credits.
Special subjects in exercise science not covered by regular courses. Some topics have included: Officiating; Women in Sports. This course may be repeated for credit when topics differ. *Prerequisite: Six hours of credit in Exercise Science or consent of the instructor.*
- 315. Advanced Concepts of Personal Training** **Johnson**
Two Credits. Offered spring semester 2010-11 and alternate years.
The course successfully bridges the gap between exercise theory and practical hands-on instruction. Course subject matter includes: anatomy, physiology, nutrition and weight management, assessment, exercise programming components, working with special populations, and ethics and professional behavior. The course prepares a student to take the National Council on Strength and Fitness certifying examination and also provides students with the skill set for capable job performance in the expanding personal training market. A student could enter the workforce as a qualified and competent nationally certified practitioner after passing the certification exam. *Prerequisite: Biology 211.*

- 320. Student Practicum in Teaching** Ernst
Two credits. Offered spring semester.
Observe classroom instruction, review materials, methods, and planning for instruction and prepare and teach a variety of lessons. Students will spend hours in an area classroom. Campus supervisors will observe each student teaching at least twice during the semester. Enrollment is limited to students seeking teacher licensure. *Prerequisite: Junior status. Grading is Pass-Fail.*
- 321. The Coaching of Football and Wrestling** Ernst
Two credits. Offered in 2009-10 and alternate years.
Comparative analysis of offensive and defensive systems in football and expansion of techniques used in counter and combination wrestling. *Prerequisite: Exercise Science 252.*
- 322. The Coaching of Basketball and Baseball** Johnson/Cruise
Two credits. Offered in 2009-10 and alternate years.
Critical examination of offensive and defensive strategies and systems as they relate to various coaching situations. *Prerequisite: Exercise Science 251.*
- 323. The Coaching of Swimming and Track and Field** Coles
Two credits. Offered in 2011-12 and alternate years.
Specific techniques in the coaching of each sport. Detailed procedures for the development of teams at various levels of competition are included. *Prerequisites: Exercise Science 251.*
- 324. Theories of Coaching** Coles
Two credits. Offered in 2010-11 and alternate years.
Study of coaching theory including skill development, strategies, rules and regulations, conditioning, scouting, practice and game organization and management, safety, and evaluation of program and personnel. Special emphasis will be given to the differences in coaching team and individual sports.
- 333. Physiology of Exercise** Coles
Three credits. Offered spring semester.
The physiological changes which occur during physical activity. Analysis of systems commonly used for the improvement of physical work capacity is included. *Prerequisite: Biology 211.*
- 340. Adapted Physical Education** Johnson
Three credits. Offered in 2009-10 and 2011-12.
The physical, mental, and emotional disabilities which affect the performance of children in public school programs. Implications for physical education programming are included. Off-campus experience.
- 342. School Health Program** Ernst
Two credits. Offered spring semester 2009-10, 2010-11, and 2012-13.
The school health program and health education. Emphasis is given to the organization of school health education, curriculum, evaluation, and services.
- 344. Health Education Methods and Materials** Ernst
Two credits. Offered in 2009-10 and alternate years.
A study of the methods, instructional strategies, and materials used in the teaching of health. *Corequisite: Exercise Science 342.*
- 352. Sports Psychology** Coles
Two credits. Offered in 2009-10 and alternate years.
A study of the psychology of sport and coaching including the psychological characteristics of both athletes and coaches, psychological and physical performance enhancement, aggression and violence, officiating, youth sports, and ethical issues.
- 361. Therapeutic Modalities in Athletic Training** Azinger
Three credits. Offered in spring 2009-10 and alternate years.
Application of anatomy and physiology to the phenomenon of rehabilitation. Emphasis will be given to the use of therapeutic modalities and physical agents in the healing and treatment process of athletic injuries. *Prerequisite: Exercise Science 211.*

- 362. Therapeutic Rehabilitation in Athletic Training** **Staff**
Three credits. Offered in 2010-11 and alternate years.
Application of anatomy and physiology to the phenomenon of rehabilitation. Emphasis will be given to the use of therapeutic exercise in the healing, treatment and return to play of athletic injuries. *Prerequisite: Exercise Science 211, 432.*
- 412. Advanced Athletic Training** **Azinger**
Three credits. Offered in 2009-10 and alternate years.
A continuation of sports medicine with emphasis given to injuries occurring to the back, abdominal region, shoulder, arm, and head. Time is also spent discussing preventative as well as rehabilitative training techniques. *Prerequisite: Exercise Science 211.*
- 421. Sports Law** **Dinegan**
Two credits. Offered in 2010-11 and alternate years.
Introduction to law and its relationship to high school, college, and professional sports and sports business. Emphasis will be given to teams and their relationships to their governing bodies (conferences, NCAA, etc.).
- 426. Motor Learning** **Coles**
Two credits. Offered in 2009-10, 2010-11, and 2012-13.
The study of the process and factors related to motor skill acquisition and performance including motor learning (the relatively permanent change in performance of a motor skill resulting from experience and/or practice), motor development (the aspects of motor skill acquisition and performance resulting from heredity), and motor control (the cognitive basis of motor skill acquisition and performance and the organization and application of these during controlled, skilled movement).
- 432. Kinesiology** **Coles**
Four credits. Offered fall semester.
Analysis of human motion; mechanical and neuromuscular aspects of movement. *Prerequisite: Junior standing and Biology 211.*
- 441. Student Practicum** **Johnson**
Two credits. Offered both semesters.
A minimum of 60 hours observing and assisting in a carefully supervised teaching, coaching, or administrative situation connected with some aspect of the Ripon College exercise science program. Each student will present their experiences at an exercise science symposium at the end of the semester.
Prerequisite: consent of the department chair. Repeatable for credit. Grading is S-U.
- 450. Problems in Administration** **Ernst**
Two credits. Offered in 2009-10 and alternate years.
Overview of problems in the administration of athletic, intramural, and physical education programs. Among topics included are budget, schedules, curriculum liability, evaluation, and grading.
- 451. Athletic Training Administration** **Azinger**
Two credits. Offered in 2010-11 and alternate years.
The study and discussion of management strategies specific to program administration in the athletic training setting. Emphasis to be given to budgeting and program development of an athletic training program.
- 500. Senior Seminar in Exercise Science** **Coles/Johnson**
Two credits. Offered spring semester.
Extensive study of research in physical education and sport. Each student will conduct a research project to be written and presented at an exercise science symposium at the end of the semester. This course is designed to enhance the students' understanding of research and the research process.
- 501. Senior Seminar in Athletic Training** **Coles/Johnson**
Two credits. Offered spring semester.
Extensive study of research in athletic training and physical therapy. Each student will conduct a research project relating to athletic training to be written and presented at an Exercise Science symposium at the end of the semester. This course is designed to enhance the students' understanding of research and the research process and its application to injury prevention and rehabilitation.

540. Independent Study

Staff

One to four credits.

Extended study and research culminating in a substantial paper. *Prerequisites: Junior or senior standing, consent of the department chair, and 12 credits toward the major.*