Exercise Science

The vision of the Department of Human Performance, Sport, and Health is "preparing and empowering future professionals to promote physical activity, health, and sport."

The mission of the Department of Human Performance, Sport, and Health is "to provide students with opportunities to excel through purposeful experiences resulting in skills, including leadership, communication, use of technology, and appreciation of individual differences. Through our programs, students develop an appreciation of the contributions of physical activity, wellness, and sport to society."

The Exercise Science program prepares students for graduate work in exercise science–related areas, as well as in areas such as physical therapy, occupational therapy, medicine, chiropractic, and other allied health fields. Students entering the job market with an undergraduate degree in exercise science generally work with corporate and community fitness programs, health clubs, and similar fitness-related industries. The program may also be chosen by students who are interested in coaching but do not wish to teach in public elementary or secondary schools.

The Department of Human Performance, Sport, and Health offers minors and a coaching specialist program that provide students with the skills and expertise to work in health clubs, coach teams, or teach special needs students. Also, in addition to offering a variety of activities classes that enhance students' liberal education, the department works with Campus Recreation and Athletics to offer a broad range of learning experiences.

Programs

- Exercise Science, B.S. (Fitness Leadership and Promotion Emphasis) *major*
- Exercise Science, B.S. (Medical Fitness Emphasis) *major*
- Human Performance Minor *minor*

Career Directions

Aquatic Specialist
Athletic Coaching
Industrial Fitness
Personal Trainer
Strength and Conditioning Specialist
Also: Graduate Study and Professional Programs

Preparation

Recommended High School Courses

Biology
Chemistry
Coaching
Exercise Science
Health
Life Sciences
Physical Education
Sports
Wellness

Exercise Science, B.S. *major*
Fitness Leadership and Promotion Emphasis

Required Credits: 67
Required GPA: 2.25

I REQUIRED COURSES

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 2110 Human Anatomy and Physiology (5 credits)
- HLTH 2100 First Aid and CPR/AED (1 credit)
- HLTH 3300 Nutrition (3 credits)
- PHED 1240 Skills for Life: Techniques of Neuromuscular Relaxation (1 credit)
- PHED 2100 Foundations of Physical Education, Exercise Science, and Sport (3 credits)
- PHED 3100 Motor Development (2 credits)
- PHED 3110 Motor Learning (2 credits)
- PHED 3120 Psychology of Sport (2 credits)
- PHED 3190 Athletic Training (2 credits)
- PHED 3200 Introduction to Sport Biomechanics (3 credits)
- PHED 3300 Physiology of Exercise and Nutrition (3 credits)
- PHED 4160 Advanced Fitness Assessment & Prescription-Aerobic (3 credits)
- PHED 4170 Advanced Principles for Strength and Speed Training Exercise (3 credits)
- PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)
- PHED 4920 DGS: (1 credit)

SELECT 1 COURSE:

- CHEM 1111 General Chemistry I (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)

SELECT 1 COURSE:

- PHYS 1101 General Physics I (4 credits)
- PHYS 2101 Physics I (5 credits)

II REQUIRED EMPHASIS

Fitness Leadership and Promotion Emphasis

- BUAD 3361 Marketing (3 credits)
  or PHED 3600 Sport Marketing (3 credits)
- HLTH 3400 Health and Drugs in Society (2 credits)
- HLTH 4410 Health Programming (3 credits)
- PHED 3449 Socio-Culture and Ethical Issues in Sport (3 credits)

SELECT 1 COURSE:

- PHED 4409 Sport Business Management (3 credits)
- PHED 3509 Sport Event Management (2 credits)
- PHED 3519 Sport Facility Management (2 credits)

III EMPHASIS ELECTIVES

SELECT 2 COURSES (4-11 CREDITS) FROM THE FOLLOWING WITH CONSULTATION WITH YOUR ADVISOR.

- BIOL 1212 Introductory Biology II (4 credits)
- CHEM 1112 General Chemistry II (4 credits)
  or CHEM 2212 Principles of Chemistry II (4 credits)
- ENGL 2150 Technical Writing (3 credits)
- HLTH 3500 Community Health (3 credits)
- HLTH 3710 Disease Prevention and Epidemiology (3 credits)
- PHYS 1102 General Physics II (4 credits)
  or PHYS 2102 Physics II (5 credits)
- PSY 1100 Introductory Psychology (4 credits)
- PSY 2217 Abnormal Psychology (4 credits)
- PSY 3237 Lifespan Development (4 credits)
- SOWK 3830 Gerontology: Social Work Perspectives (2 credits)
- NRSG 3000 OR HIGHER (2-6 CREDITS)

IV REQUIRED PRACTICAL EXPERIENCE

COMPLETE THE FOLLOWING COURSE, UP TO 6 CREDITS:

- PHED 4970 Internship:Exercise Science

SUGGESTED SEMESTER SCHEDULE FOR EXERCISE SCIENCE MAJOR, B.S.

Students are encouraged to take the required Exercise Science, B.S. courses in approximate numerical order. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions. Students are encouraged to consult the course descriptions for prerequisites.
The following Liberal Education courses are recommended for students majoring in Exercise Science: PSY 1100 Introductory Psychology, SOC 1104 Introduction to Sociology, and SPCM 1090 Interpersonal Communication (or SPCM 1100 Public Speaking).
Freshman
- BIOL 1211 Introductory Biology I (4 credits)
- CHEM 1111 General Chemistry I (4 credits)
  or CHEM 2211 Principles of Chemistry I (4 credits)
- PHED 2100 Foundations of Physical Education, Exercise Science, and Sport (3 credits)
- PSY 1100 Introductory Psychology (4 credits)
- SOC 1104 Society and Social Issues (3 credits)
- SPCM 1090 Interpersonal Communication (3 credits)
  or SPCM 1100 Public Speaking (3 credits)
- Liberal Education requirements

Sophomore
- BIOL 2110 Human Anatomy and Physiology (5 credits)
- HLTH 2100 First Aid and CPR/AED (1 credit)
- PHED 1240 Skills for Life: Techniques of Neuromuscular Relaxation (1 credit)
- PHED 3100 Motor Development (2 credits)
- PHED 3110 Motor Learning (2 credits)
- PHED 3190 Athletic Training (2 credits)
- PHYS 1101 General Physics I (4 credits)
  or PHYS 2101 Physics I (5 credits)
- Liberal Education requirements

Junior
- HLTH 3300 Nutrition (3 credits)
- PHED 3120 Psychology of Sport (2 credits)
- PHED 3200 Introduction to Sport Biomechanics (3 credits)
- PHED 3300 Physiology of Exercise and Nutrition (3 credits)
- PHED 4160 Advanced Fitness Assessment & Prescription-Aerobic (3 credits)
- PHED 4170 Advanced Principles for Strength and Speed Training Exercise (3 credits)
- Exercise Science Courses in Emphasis
- Exercise Science Electives

Senior
- PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)
- PHED 4920 DGS: (1 credit)
- PHED 4970 Internship (1-12 credits)
- Exercise Science Courses in Emphasis
- Exercise Science Electives

Exercise Science, B.S. *major*
Medical Fitness Emphasis

Required Credits: 65
Required GPA: 2.25

I REQUIRED COURSES

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 2110 Human Anatomy and Physiology (5 credits)
- HLTH 2100 First Aid and CPR/AED (1 credit)
- HLTH 3300 Nutrition (3 credits)
- PHED 1240 Skills for Life: Techniques of Neuromuscular Relaxation (1 credit)
- PHED 2100 Foundations of Physical Education, Exercise Science, and Sport (3 credits)
- PHED 3100 Motor Development (2 credits)
- PHED 3110 Motor Learning (2 credits)
- PHED 3120 Psychology of Sport (2 credits)
- PHED 3190 Athletic Training (2 credits)
- PHED 3200 Introduction to Sport Biomechanics (3 credits)
- PHED 3300 Physiology of Exercise and Nutrition (3 credits)
- PHED 4160 Advanced Fitness Assessment & Prescription-Aerobic (3 credits)
- PHED 4170 Advanced Principles for Strength and Speed Training Exercise (3 credits)
- PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)

- PHED 4920 DGS: (1 credit)

SELECT 1 COURSE:

- CHEM 1111 General Chemistry I (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)

SELECT 1 COURSE:

- PHYS 1101 General Physics I (4 credits)
- PHYS 2101 Physics I (5 credits)

II REQUIRED EMPHASIS

A. Medical Fitness Emphasis

- BIOL 1300 Medical Terminology (2 credits)
- HLTH 3710 Disease Prevention and Epidemiology (3 credits)
- PSY 3401 Basic Statistics for Research (4 credits)
  or STAT 3660 Statistics for the Health Sciences (3 credits)

III EMPHASIS ELECTIVES

SELECT 3 COURSES (7-15 CREDITS) FROM THE FOLLOWING WITH
CONSULTATION WITH YOUR ADVISOR.

NOTE: HLTH 3710 may not be used as an elective with the Medical Fitness emphasis.

- BIOL 1212 Introductory Biology II (4 credits)
- CHEM 1112 General Chemistry II (4 credits)
  or CHEM 2212 Principles of Chemistry II (4 credits)
- ENGL 2150 Technical Writing (3 credits)
- HLTH 3500 Community Health (3 credits)
- HLTH 3710 Disease Prevention and Epidemiology (3 credits)
- PHYS 1102 General Physics II (4 credits)
  or PHYS 2102 Physics II (5 credits)
- PSY 1100 Introductory Psychology (4 credits)
- PSY 2217 Abnormal Psychology (4 credits)
- PSY 3237 Lifespan Development (4 credits)
- SOWK 3830 Gerontology: Social Work Perspectives (2 credits)
- NRSG 3000 OR HIGHER (2-6 CREDITS)

IV REQUIRED PRACTICAL EXPERIENCE

COMPLETE THE FOLLOWING COURSE, UP TO 6 CREDITS:

- PHED 4970 Internship:Exercise Science

SUGGESTED SEMESTER SCHEDULE FOR EXERCISE SCIENCE MAJOR, B.S.

Students are encouraged to take the required Exercise Science, B.S. courses in approximate numerical order. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions. Students are encouraged to consult the course descriptions for prerequisites.
The following Liberal Education courses are recommended for students majoring in Exercise Science: PSY 1100 Introductory Psychology, SOC 1104 Introduction to Sociology, and SPCM 1090 Interpersonal Communication (or SPCM 1100 Public Speaking).

Freshman
- BIOL 1211 Introductory Biology I (4 credits)
- CHEM 1111 General Chemistry I (4 credits)
  or CHEM 2211 Principles of Chemistry I (4 credits)
- PHED 2100 Foundations of Physical Education, Exercise Science, and Sport (3 credits)
- PSY 1100 Introductory Psychology (4 credits)
- SOC 1104 Society and Social Issues (3 credits)
- SPCM 1090 Interpersonal Communication (3 credits)
  or SPCM 1100 Public Speaking (3 credits)
- Liberal Education requirements

Sophomore
- BIOL 2110 Human Anatomy and Physiology (5 credits)
- HLTH 2100 First Aid and CPR/AED (1 credit)
- PHED 1240 Skills for Life: Techniques of Neuromuscular Relaxation (1 credit)
- PHED 3100 Motor Development (2 credits)
- PHED 3110 Motor Learning (2 credits)
- PHED 3190 Athletic Training (2 credits)
- PHYS 1101 General Physics I (4 credits)
  or PHYS 2101 Physics I (5 credits)
- Liberal Education requirements

Junior
- HLTH 3300 Nutrition (3 credits)
- PHED 3120 Psychology of Sport (2 credits)
- PHED 3200 Introduction to Sport Biomechanics (3 credits)
- PHED 3300 Physiology of Exercise and Nutrition (3 credits)
- PHED 4160 Advanced Fitness Assessment & Prescription-Aerobic (3 credits)
- PHED 4170 Advanced Principles for Strength and Speed Training Exercise (3 credits)
- Exercise Science Courses in Emphasis
- Exercise Science Electives

Senior
- PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)
- PHED 4920 DGS: (1 credit)
- PHED 4970 Internship (1-12 credits)
- Exercise Science Courses in Emphasis
- Exercise Science Electives

Human Performance Minor *minor*

Required Credits: 20
Required GPA: 2.00

I REQUIRED COURSES

COMPLETE THE FOLLOWING COURSES:

- BIOL 1110 Human Biology (4 credits)
  or BIOL 1211 Introductory Biology I (4 credits)
- HLTH 2100 First Aid and CPR/AED (1 credit)
- PHED 2100 Foundations of Physical Education, Exercise Science, and Sport (3 credits)
- PHED 3300 Physiology of Exercise and Nutrition (3 credits)
- PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)

COMPLETE THE FOLLOWING COURSE:

- PHED 4970 Internship (1-12 credits)

II REQUIRED OPTION

Select one of the following options (Physical Education and Exercise Science majors may not double count courses in either option.

II REQUIRED OPTION

Option A. Pedagogy

SELECT 3 OF THE FOLLOWING COURSES:

- PHED 2640 Water Safety Instructor (3 credits)

- PHED 3100 Motor Development (2 credits)
  or PHED 3110 Motor Learning (2 credits)
- PHED 3504 Teaching Rhythms and Dance (2 credits)
- PHED 3505 Teaching Elementary Physical Education (2 credits)
- PHED 3604 Teaching Team Sports (2 credits)
- PHED 3605 Teaching Individual Sports (2 credits)
- PHED 3607 Teaching Fitness (2 credits)

Option B. Fitness and Training

SELECT 3 OF THE FOLLOWING COURSES:

- HLTH 3300 Nutrition (3 credits)
- PHED 1240 Skills for Life: Techniques of Neuromuscular Relaxation (1 credit)
- PHED 3100 Motor Development (2 credits)
- PHED 3200 Introduction to Sport Biomechanics (3 credits)
- PHED 3504 Teaching Rhythms and Dance (2 credits)
- PHED 4160 Advanced Fitness Assessment & Prescription-Aerobic (3 credits)
- PHED 4170 Advanced Principles for Strength and Speed Training Exercise (3 credits)

Health Courses

HLTH 2100 First Aid and CPR/AED (1 credit)
An introduction to emergency action principles, first aid, and CPR/AED (automated external defibrillation) for lay responders. American Red Cross Adult, Child and Infant CPR (1-year), Adult and Child AED (1-year), and First Aid (3-year) certificates may be earned. Recommended as a basic course for professional educators.

HLTH 2200 First Aid and CPR/AED Instructor (1 credit)
Designed to prepare First Aid and CPR/AED students to become instructors for Lay Responder First Aid and CPR/AED. American Red Cross Instructors Certificate may be earned. Recommended as an advanced course for professional educators. Law enforcement personnel are also encouraged to consider the course. Prerequisite: HLTH 2100 or equivalent.

HLTH 2800 Multicultural Health in America (2 credits)
Examines the health issues and problems faced by ethnic minority populations in America, specifically by African Americans, American Indians, Hispanic Americans, and Americans of Asian and Pacific Island descent. Since a disproportionate number of health problems confront these minority groups, this course (a) examines specific health problems, (b) evaluates what is known and unknown about these specific problems, and (c) re-evaluates the current health care system in America to resolve these special problems in health care delivery. Liberal Education Goal Area 7.

HLTH 2925 People and the Environment: A Health Perspective (3 credits)
This course builds upon the principles discussed in the large group, focusing greater attention on health issues related to the environment, including the food supply, water quality, air quality, and other environmental health risks. These are discussed in the context of common diseases such as cancers, asthma, communicable diseases, and other health problems associated with the environment. Liberal Education Goal Area 10.

HLTH 3150 Theoretical and Ethical Foundations of Health (3 credits)
Provides entry level health education and community health students with the theoretical and ethical foundations of health. Also examines health's history, philosophy, settings, literature, and credentialing.

HLTH 3200 Personal and Consumer Health (3 credits)
A comprehensive study of personal health identifying ill-advised health behaviors and recommending strategies for positive behavioral change. From an opportunity cost perspective, personal health care options, products and services in the marketplace will be examined. Opportunities to network with local, state and federal consumer health agencies will be provided. Prerequisite or Co-requisite: For Community Health and Health Education majors and Health Promotion and Education minors: HLTH 3150; Non-majors/minor may select this class with consent of instructor.

HLTH 3300 Nutrition (3 credits)
Fundamentals of food utilization in the body and diet planning including discussion of the relationship between dietary habits and disease. Also included are discussions of current trends in nutrition, dietary changes for special conditions such as pregnancy, infancy, teenagers, aging, athletes, and cultural differences in dietary practices.

HLTH 3400 Health and Drugs in Society (2 credits)
A study of chemical use and abuse as related to personal and community health. Various drugs and drug-taking behaviors will be defined and discussed. Historical, cultural, educational, and legal perspectives will be examined. Multi-faceted prevention and rehabilitation strategies promoting wellness will be discussed. Prerequisites: Sophomore status with a declared major area of study in the College of Health Sciences and Human Ecology and Nursing.

HLTH 3500 Community Health (3 credits)
Comprehensive study of the community health challenges confronting the citizenry of the United States of America. Examines the roles of federal, state, and local governments, as well as private agencies, in individual and aggregate health care. Provides opportunities for community health networking. Prerequisites: For health majors/minors: HLTH 3150 and HLTH 3200; For non-majors/minors: Consent of instructor.

HLTH 3600 Emergency Response (3 credits)
Designed to provide advanced students the knowledge, skills and training to administer initial first aid in emergencies. American Red Cross advanced certificate may be earned. Ideal course for law enforcement personnel, athletic trainers, and juvenile officers. Prerequisite: HLTH 2100 or equivalent.

HLTH 3710 Disease Prevention and Epidemiology (3 credits)
An introduction to disease prevention, pathophysiology, and treatment of the most common communicable and chronic diseases in human populations. Focuses on the history and principles of disease occurrence in the context of environment and lifestyle choice. Students specifically examine risk factor management and the epidemiological data supporting the influence of physical activity in chronic disease prevention and management. Additionally, learners gain an introductory knowledge of epidemiology and biostatistics enabling them to successfully critique the scientific and educational literature. Prerequisites: For Community Health and Health Education majors: BIOL 1110, HLTH 3150, HLTH 3200, and HLTH 3500; For non-majors and the Health Promotion and Education minor: Consent of instructor.

HLTH 3970 Internship: Practicum in Health (1-3 credits)
When taken as Practicum in Health the following description applies: Community health majors will gain a 30-90 hour experience in a local health facility in preparation for the application of previous course work. Prerequisites: HLTH 3150 and HLTH 3200.

HLTH 4100 Teaching Elementary School Health (2 credits)
An integrated approach to the organization, content, goals, objectives, curriculum, methods and techniques of teaching health at the elementary level. Coordinating services and establishing collaboration will be incorporated. Elementary school state and national guidelines and mandates will be discussed. Teaching opportunities will be provided. Prerequisite: entrance into the teacher education program.

HLTH 4206 Secondary School Health (2 credits)
An integrated approach to the organization, content, goals, objectives, curriculum, methods, and techniques of teaching health at the secondary school level. Incorporates coordinating services and establishing collaboration. Secondary school state and national guidelines and mandates are discussed. Prerequisite: Entrance into the teacher education program or consent of instructor.

HLTH 4410 Health Programming (3 credits)
A comprehensive study of the process of identifying health problems, establishing health programming, and promoting, implementing, and evaluating the program. Also examines vision and mission statements, along with goals, objectives, timetables, and interpretation of results. This course parallels CHES criteria and utilizes a local community health organization to integrate student involvement. Prerequisites: For health majors/minors: HLTH 3150, HLTH 3200, HLTH 3500, HLTH 3710; For non-majors/minors: Consent of instructor.

HLTH 4920 Directed Group Study: Health Seminar (1 credit)
When taken as Health Seminar the following description applies: Intended as a capstone course to prepare the health major for employment, internship/job procurement, or continuing education in a graduate program. This course integrates discussion of strategies for professional development, as well as providing quality written composition on employment/graduate program goals and objectives. Prerequisite: Senior status or consent of instructor.

HLTH 4970 Internship (1-12 credits)
When taken for the Community Health major the following description applies: Students will gain field experience in a health related facility relevant to specific career goals. Opportunities will exist for the student to apply the different concepts and theories from course work directly in the work setting through observation, planning, decision-making, committee participation, leadership, operation management, and individual and group projects. Required: A minimum of 30 practicum hours per credit. Prerequisite: completion of all health course work and degree requirements. When taken as the Secondary Health Teaching Practicum, the following description applies: A 30-hour practicum in which students have the opportunity to teach health lessons, assist health teachers deliver health instruction, observe health teachers deliver health instruction, read to students, listen to students read, tutor students, and perform other duties as required by the BOT Standards and requested by the health teacher. Prerequisite: Entrance into the teacher education program or consent of instructor.

All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

Physical Education Courses

PHED 1114 Skills For Life: Beginning Swimming (1 credit)
An activity course for non-swimmers. Emphasis will be on personal adjustment to the water, basic strokes, and fundamentals of water safety. Liberal Education Goal Area 11.

PHED 1115 Intermediate Swimming (1 credit)
An activity course for swimmers who have the ability to jump into deep water, swim a front stroke 25 yards, and swim on the back 25 yards. Emphasis will be on five basic strokes, elementary diving, and related aquatic skills. Course may lead to American Red Cross Learn to Swim Certification Level 4 or 5. May not be offered every year.

PHED 1116 Advanced Swimming (1 credit)
An activity course for swimmers who can swim in satisfactory form 25 yards of each of the five basic strokes (back crawl, breaststroke, front crawl, elementary backstroke, sidestroke). Emphasis will be on developing and refining thirteen strokes, diving and other advanced aquatic skills. Course leads to American Red Cross Learn to Swim Certification Level 6 - Fitness Swimmer. This course is preparatory for the Water Safety Instructor course.

PHED 1120 Introduction to Sea Kayaking (1 credit)
An activity course that introduces the basics of kayak history, design, skills, and equipment. Taught through lecture, demonstration, and both on- and off-the-water skills practice.

PHED 1139 Beginning Scuba Diving (1 credit)
Upon completion of this course, students will understand and be able to demonstrate the safe scuba diving practices of the Professional Association of Dive Instructors (PADI) curriculum. Focuses on classroom knowledge development and confined-water skill development. Equipment and supplies are provided. This course is phase 1 of the PADI certification course. Students wishing to complete the certification as an Open Water Diver will need to take additional instruction. Liberal Education Goal Area 11.

PHED 1180 Canoeing (1 credit)
An activity course that introduces the fundamental skills of canoeing. Emphasis is on safety and on tandem and solo paddling techniques. Prerequisite: swimming test or consent of instructor. Liberal Education Goal Area 11.

PHED 1190 Skills for Life: Sailing (1 credit)
An activity course that introduces the fundamental skills of sailing. Development of skills and knowledge of safety, nomenclature, designs, rigging, handling, maintaining, and racing for sailboats. Prerequisite: swimming test or consent of instructor. Liberal Education Goal Area 11.

PHED 1200 Introduction To Rock Climbing (1 credit)
Introduction to the basics of Top Rope Rock Climbing and Rappelling through practice at the BSU Climbing Wall and/or other sites. Also includes climbing communication, "leave no trace" climbing techniques, techniques for setting anchors, and discussion of environmental values. Liberal Education Goal Area 11.

PHED 1230 Yoga (1 credit)
This course introduces students to basic yoga techniques and allows practice and development of the physical skills needed to perform approximately 40 basic exercises and postures. Liberal Education Goal Area 11.

PHED 1240 Skills for Life: Techniques of Neuromuscular Relaxation (1 credit)
An introduction to skill development in Jacobson's techniques to improve awareness of muscular tension and procedures for enhanced neuromuscular relaxation. Origins of stress and the body's responses to stress and stress management techniques will be included. Liberal Education Goal Area 11.

PHED 1260 Skills for Life: Cycling (1 credit)
Introduction to and practice in bicycling either off-road or road riding. Basic maintenance skills such as adjusting derailleurs, brakes and changing tires will be presented. Information on cycling for fitness, racing and bicycle touring will be presented. Liberal Education Goal Area 11.

PHED 1300 Skills for Life: Weight Training (1 credit)
An activity course that consists of an individualized or group weight program dealing with the fundamentals and practice of resistance exercise techniques for the development of the human body. Liberal Education Goal Area 11.

PHED 1380 Skills for Life: Self Defense (1 credit)
An activity course that examines and applies preventative and precautionary measures, assault awareness information, and most commonly needed personal self-defense skills and techniques. Liberal Education Goal Area 11.

PHED 1430 Skills for Life: Archery (1 credit)
An activity course that examines and applies the fundamentals and skills of archery. Selection and care of equipment, instruction and practice of shooting skills and scoring in target archery will be included. Liberal Education Goal Area 11.

PHED 1454 Skills for Life: Golf (1 credit)
An activity course that examines and applies the fundamentals and skills of golf. Selection and care of equipment, history and rules of the game, safety, etiquette, instruction and practice will be included. Liberal Education Goal Area 11.

PHED 1474 Skills for Life: Bowling (1 credit)
An activity course that examines and applies the fundamentals and skills of bowling. Students will demonstrate a knowledge of bowling history, scoring, handicapping and skills in bowling and etiquette. Liberal Education Goal Area 11.

PHED 1490 Skills for Life: Badminton (1 credit)
An activity course that examines and applies the fundamentals and skills of badminton. Students will demonstrate a knowledge of badminton history, scoring, and rules and regulations in singles and doubles play. Racket grips, strokes, footwork and tactics will be discussed and practiced. Liberal Education Goal Area 11.

PHED 1500 Skills for Life: Ice Skating (1 credit)
An activity course that examines and applies the fundamentals and skills of ice skating. Forward and backward stroking, crossovers and stops will be part of the evaluation. Liberal Education Goal Area 11.

PHED 1520 Downhill Skiing (1 credit)
An activity course that introduces the basic skills of beginning downhill skiing. Technique and skill development in traversing, turning, speed control and stopping will be included. The language of ski safety will also be discussed. (May not be offered every year.)

PHED 1530 Snowboarding (1 credit)
An activity course that introduces the basic skills of snowboarding, including toe turns, heel turns, carving, skating, stopping, and various forms of "riding." Includes an overview of snowboard equipment and how to select appropriate equipment. Liberal Education Goal Area 11.

PHED 1540 Skills for Life: Curling (1 credit)
An activity course that introduces the skills of curling, including techniques of throwing rocks and sweeping as well as strategies, rules, and scoring. (May not be offered every year) Liberal Education Goal Area 11.

PHED 1554 Skills for Life: Cross Country Skiing (1 credit)
An activity course that introduces the basic skills of cross country skiing including downhill turns and stopping. The student may choose to learn either skate skiing skills or the traditional skills of diagonal stride skiing. Some trail skiing will be included. Liberal Education Goal Area 11.

PHED 1574 Skills for Life: Tennis (1 credit)
An activity course that introduces the basic skills of tennis including techniques of basic grips, strokes and footwork. Entry level strategies for singles and doubles, history and rules of the game, etiquette, and scoring will be taught. Liberal Education Goal Area 11.

PHED 1604 Skills for Life: Social Dance I (1 credit)
This beginner-level activity course examines and applies the fundamentals and skills of contemporary, popular, and club style partner dances not typically included in a classic ballroom syllabus. Liberal Education Goal Area 11.

PHED 1605 Social Dance II (1 credit)
This intermediate- to advanced-level activity course examines and applies the fundamentals and skills of contemporary, popular, and club style partner dances not typically included in a classic ballroom syllabus. Prerequisite: PHED 1604 or consent of instructor. (Might not be offered every year.)

PHED 1606 Skills for Life: American Style Ballroom Dance I (1 credit)
An activity course that examines and applies the fundamentals and skills of classic ballroom dance. The steps taught are from the Dance Vision International Dance Association (DVIDA) American Bronze syllabus. Liberal Education Goal Area(s): 11.

PHED 1607 Skills for Life: American Style Ballroom Dance II (1 credit)
An activity course that examines and applies the fundamentals and skills of classic ballroom dance at an intermediate to advanced level. The steps taught are from the Dance Vision International Dance Association (DVIDA) American Bronze syllabus. Prerequisite: PHED 1606 or consent of instructor.

PHED 1608 Skills for Life: International Style Ballroom Dance (1 credit)
An activity course that examines and applies the fundamentals and skills of classic international style ballroom dance. The steps taught are from the Dance Vision International Dance Association (DVIDA) International Bronze syllabus. Liberal Education Goal Area 11.

PHED 1764 Skills for Life: Basketball (1 credit)
An activity course that examines and applies the fundamentals and skills of basketball. History and rules of the game, safety, drills, entry level strategies, conditioning, individual and group instruction and practice will be included. Liberal Education Goal Area 11.

PHED 1784 Skills for Life: Volleyball (1 credit)
An activity course that examines and applies the fundamentals and skills of volleyball. History and development, basic team systems, rules and strategies of the game will be included. Liberal Education Goal Area 11.

PHED 1814 Skills for Life: Softball (1 credit)
An activity course that examines and applies the fundamentals and skills of slow and fast pitch softball. History and rules of the game, terminology, score keeping, safety, field playing areas, drills, and entry level game strategies will be included. Liberal Education Goal Area 11.

PHED 1840 Skills for Life: Racquetball (1 credit)
An activity course that examines and applies the fundamentals and skills of racquetball. Components such as safety, serving and volleying will be emphasized. Singles, cutthroat, and doubles play will be introduced. Liberal Education Goal Area 11.

PHED 1854 Skills for Life: Soccer (1 credit)
An activity course that examines and applies the fundamentals and skills of soccer. The history of the game, rules and regulations and entry level drill and game strategies will be examined. Liberal Education Goal Area 11.

PHED 1890 Lifetime Fitness (2 credits)
This personal fitness class will allow students to develop their own aerobic and possibly strengthening program. They will receive some instruction in the development of fitness, use of equipment, etc., but the focus will be active participation in walking, jogging, rowing, stepping, etc. Liberal Education Goal Area 11.

PHED 2100 Foundations of Physical Education, Exercise Science, and Sport (3 credits)
A critical examination of the history, people, events, programs and philosophical positions that have led to the current status of physical education, fitness and sport in the United States. Students will be provided with up-to-date information about physical education and its diverse sub-fields as well as an introduction to career roles and preparation for professional service in all areas of physical education, kinesiology and exercise science.

PHED 2109 Introduction to Sport Management (3 credits)
This course will help and assist the prospective sport management major to discover specialized training personnel positions in the rapidly growing sport management field. Concentration will be on the duties and tasks performed, and the competencies needed for a career in sport management. Students will conduct a formal interview with a professional to further discuss the duties, tasks and competencies needed for that professional's field of work.

PHED 2200 A Lifestyle for Wellness (2 credits)
An examination of the social, emotional, mental, spiritual and physical dimensions of wellness. Students will examine their own lifestyles and learn how to make behavioral changes. Emphasis on self-esteem, nutritional habits, exercise habits and the importance of self-responsibility. Liberal Education Goal Area 9.

PHED 2630 Lifeguard Training (3 credits)
A lecture course with laboratory activity that examines and applies the fundamentals and skills of supervising swimming pool and water front activities. American Red Cross Certification may be earned for: Lifeguard Training and First Aid, CPR/AED for the Professional Rescuer, and Waterfront Lifeguarding. Good swimming skills are needed to succeed in this course.

PHED 2640 Water Safety Instructor (3 credits)
A lecture course with laboratory activity that constitutes all the aspects for the training of American Red Cross Water Safety Instructors. American Red Cross Water Safety Instructor Certification may be earned. Contact professor for further details. (May not be offered every year.)

PHED 2925 People and the Environment: (3 credits)
This class will explore the concepts of wilderness and recreation and how these relate to practices that protect or enhance the environment. May not be offered every year. Liberal Education Goal Area 10.

PHED 2970 Internship: Sport Management Practicum (2 credits)
When taken as Sport Management Practices, the following description applies: A study of various skills, roles, and functions of sport managers in managing people, the workplace, and day-to-day operations. Topics include definitions; management theories; functions of management; time management skills; effective decision making and problem solving; motivational theories, morale, and strategies; leadership theories; personal styles of leadership; and skills and competencies of sport leaders. Also includes practical experience in the organization and administration of sporting events or related areas. Prerequisite: PHED 2109 or consent of instructor.

PHED 3090 Sport Physiology (2 credits)
Emphasis on conditioning athletes including body composition, nutrition, cardiovascular fitness, flexibility, strength and other conditioning issues as related to sport training and participation. This course is designed primarily for non-PE majors who are interested in the coaching specialist program.

PHED 3100 Motor Development (2 credits)
An introduction to motor development and related motor theories. Application of these basic motor principles to the teaching of physical education and activity at all levels.

PHED 3110 Motor Learning (2 credits)
An introductory class in motor control and learning that gives an overview of the processes and mechanisms involved in generating, acquiring, and refining motor skills and of factors that foster or hinder the acquisition and refinement of these skills.

PHED 3120 Psychology of Sport (2 credits)
Study of the general relationship between individuals and sports behavior. Covers competitiveness, goal setting, peak performance, psychosocial influences, and rehabilitation. Also includes guides to show how teaching and learning may be applied to the coaching of sport and to bring out the relationship of meaningful learning to successful athletic coaching.

PHED 3190 Athletic Training (2 credits)
A lecture course with laboratory activity introducing the five practice domains of athletic training that include: prevention, recognition and evaluation, rehabilitation, reconditioning of athletic injuries, administration and professional development. Other topics include the theory and practice of athletic taping and risk management.

PHED 3200 Introduction to Sport Biomechanics (3 credits)
Introduction to biomechanical concepts and principles. Application of these principles to evaluating and improving performance in physical activities. Introduction to methods for qualitative movement analysis. Prerequisite: BIOL 2110 and PHED 3100 or consent of instructor.

PHED 3219 Sport Economics (2 credits)
This course provides the an understanding of theories and concepts related to economics of sport. Topics covered include economic growth of the sport industry, concepts of competitive strategy, economic impact principles, economic theory applied to various levels of sport, labor relations, stadium and arenas, venues and events, manufacturing and service industries, and impact of media. Prerequisite: ECON 2000 or consent of instructor.

PHED 3300 Physiology of Exercise and Nutrition (3 credits)
An examination of the effects of exercise on the systems of the body as they relate to health and performance. Nutritional concepts of weight control, ergogenic aids and fluid replacement will be discussed. Techniques for developing, prescribing, and assessing fitness components will be presented. Prerequisite: BIOL 2110 or consent of instructor.

PHED 3449 Socio-Culture and Ethical Issues in Sport (3 credits)
Study of the general relationship between individuals and sport, and sport and society. Discussions cover the ways sport is linked to other spheres of social life, the organization and behavior patterns of both individuals and groups within sport settings, and the cultural, structural, and situational factors affecting sport and sport experiences.

PHED 3504 Teaching Rhythms and Dance (2 credits)
Methods and materials for teaching various forms of rhythms and dance. Components include effective individual and group instruction; cultural and historical implications; dance steps, fundamentals, and a variety of traditional, creative and contemporary dance forms applicable to the K-12 setting. Prerequisite: entrance into the teacher education program or consent of instructor.

PHED 3505 Teaching Elementary Physical Education (2 credits)
An introduction to the developmental physical education program at the elementary school level. Components include learner characteristics, program content and organization and methods of teaching physical education. Prerequisite: PHED 3504 and entrance into the teacher education program or consent of instructor.

PHED 3509 Sport Event Management (2 credits)
This course will provide the student with an understanding of the responsibilities in managing sport facilities, administering, organizing and producing sporting events. The topics will range from personnel issues, facility protocol and procedures, and emergency plans. Prerequisite: BUAD 2280 or consent of instructor.

PHED 3519 Sport Facility Management (2 credits)
This course provides an understanding of sport facility management, facility planning, site and design development, systems and operations, and facility administration. Prerequisite: BUAD 2280 or consent of instructor.

PHED 3600 Sport Marketing (3 credits)
Study of fundamental marketing principles utilized in sport. Topics include definitions, marketing planning process, goals and objectives of marketing, marketing mix, segmentation, target markets, consumer behavior, sponsorship, endorsement, merchandising, fundraising, print media and mass communication. Prerequisite: BUAD 2280 or consent of instructor.

PHED 3604 Teaching Team Sports (2 credits)
Activities and teaching methods for team sport activities included in current physical education programs at all levels. Prerequisite: entrance into the teacher education program or consent of instructor.

PHED 3605 Teaching Individual Sports (2 credits)
Methods of teaching and the practice of the skills such sports as tennis, golf, pickleball, archery, badminton, bowling, and racquetball are the focus. Development of lesson plan, unit plans and application of teaching methods is emphasized. Prerequisite: entrance into the teacher education program or consent of instructor.

PHED 3607 Teaching Fitness (2 credits)
Methods of teaching and the practice in the development of physical fitness, including development of the health related fitness components of strength, cardiovascular endurance, muscular endurance, and flexibility with activities such as cross country skiing, exercise walking, orienteering, cycling, yoga, and weight training. Prerequisite: Entrance into the Teacher Education program or consent of instructor.

PHED 3620 Techniques of Officiating Basketball (1 credit)
A comprehensive study of the rules governing the game of basketball. Practical experience in simulated game situations will be provided. Information will be available for securing state high school league officiating status. May not be offered every year.

PHED 3690 Coaching Principles (2 credits)
The fundamental concepts and basic trends in the field of coaching. The history, present philosophies, psychology, pedagogy, physiology, sports medicine and objectives will be analyzed and examined. Topics that are universal to all coaching disciplines like scheduling, risk management, sport law, dealing with media, parents, peer pressure, and academic requirements will be covered.

PHED 3710 Basketball Coaching (2 credits)
The study of the game of basketball and the instructional techniques of individual and team play. Organizational procedures, practice preparation, scouting, rules and regulations, skill sequence and development, offensive, defensive and transitional systems, coaching philosophies and public relations will be examined.

PHED 3720 Football Coaching (2 credits)
A comprehensive study of developing a successful football team with an emphasis on teaching appropriate techniques and skills of the game. Practice and game organization, delegation of staff responsibilities and public relations will also be examined.

PHED 3740 Ice Hockey Coaching (2 credits)
In depth lectures and discussion concerning offensive and defensive skills and tactics, power play and penalty killing. Skilled positional play of goalies, defensemen, centers, and wings (forwards). Coaching techniques, motivational and leadership development, theory, rules, and regulations. Additional assignments involve planning and evaluating practices, games and athletic talent. Rules, budgets, and equipment repair will be discussed. (May not be offered every year.)

PHED 3750 Soccer Coaching (2 credits)
Organization and preparation for interscholastic competition. Emphasis will be on teaching specific soccer skills, individual player structures, practice preparation, and management. Strategies, conditioning and psychology of coaching issues will be examined. (May not be offered every year.)

PHED 3770 Swimming Coaching (2 credits)
Emphasis will be on developing knowledge and understanding of the applications of various laws of motion, leverage and flotation in the teaching of advanced swimming and diving skills. Emphasis on pool operation, swimming meet organization and swimming meet rules is included. Class participation includes classroom and laboratory experiences. (May not be offered every year.)

PHED 3790 Track and Field Coaching (2 credits)
Discussion and application of fundamental concepts required for effective teaching of the events in track and field. Event enrollment and management along with the aspects of practice and event coaching will be discussed.

PHED 3800 Volleyball Coaching (2 credits)
Provides information and training for teaching and coaching volleyball with an emphasis on the high school level. Class lecture and application activities on the court included. (May not be offered every year.)

PHED 4160 Advanced Fitness Assessment & Prescription-Aerobic (3 credits)
Theory and practice of physical fitness assessment for the purpose of prescribing aerobic exercise to adults, both healthy populations and those with special conditions, such as obesity, diabetes, osteoporosis, asthma, hypertension, and heart disease. Prepares students for American College of Sports Medicine (ACSM) Health Fitness Specialist exam as well as other personal trainer certifications. Prerequisite: PHED 3300 or consent of instructor.

PHED 4170 Advanced Principles for Strength and Speed Training Exercise (3 credits)
Theory and practice of strength and speed training with emphasis on technique analysis and instructional methods for strength training. Includes facility design and equipment purchasing and maintenance. Prepares students for National Strength and Conditioning Association Certified Strength and Conditioning Specialist (CSCS). Prerequisite: PHED 3300 or consent of instructor.

PHED 4200 Methods of Teaching Elementary Physical Education to Classroom Teachers (1 credit)
Organization and conduct of the physical education program in the elementary school.

PHED 4209 Sport Finance (3 credits)
This course will provide the student an understanding of theories and concepts used in financial resource management for the operation of programs in both public and private sectors of sport. Topics include ethical concerns, decision making, principles of budgeting, budget development, financial statements, spread sheet utilization, and sources of revenue for financing sport. Prerequisites: ACCT 1101 or consent of instructor.

PHED 4250 Teaching Secondary Physical Education (2 credits)
An online methods course designed specifically for physical education teacher licensure candidates in the FasTrack program. Students utilize national physical education standards, appropriate management protocols and pedagogical best practice to plan and deliver physical education lessons for students in grades 6-12. Students design learning and assessment activities that align with current national standards and learning outcomes.

PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)
An overview of the field of sports law, with applications to amateur sport, professional sport, recreation, health, healthcare, and fitness settings. Key areas of the law are identified, and applications within the sport, health and fitness industries are studied. Provides information about legal issues that may help professionals avoid litigation by foreseeing and preventing problems. Prerequisite: Junior or Senior status.

PHED 4360 Adventure Programming (3 credits)
Nuts and bolts of planning educational outdoor adventure experiences. Also reviews theory, literature, and program types.

PHED 4400 Curriculum and Assessment in Physical Education (3 credits)
Focus on the curricular process and it's evaluation to determine if the curriculum is meeting community and individual student needs. A second focus will be on assessment goals, objectives and outcomes of the cognitive, affective and motor aspects of physical education. Prerequisites: PHED 2100, PHED 3200, and PHED 3300 or consent of instructor.

PHED 4409 Sport Business Management (3 credits)
Study of the structures and processes of sport organizations. Topics include definitions; organizational behavior and structure; strategic planning process; organizational philosophy, goals, objectives, and mission statement; and human resource management. Also examines concepts of morality, theories of ethics, professional ethics, social responsibility, personal and management values, and how to develop a professional code of ethics. Prerequisite: PHED 2970 or consent of instructor.

PHED 4500 Inclusive Physical Education (3 credits)
An introduction to the study and practice of teaching physical education to children with disabilities in the public schools. Prerequisites: PHED 3100, PHED 3110, PHED 3200, PHED 3504, PHED 3505, PHED 3604, PHED 3605, PHED 3607, or consent of instructor.

PHED 4514 DAPE Program Planning (3 credits)
First in a series of three courses, DAPE Program Planning provides knowledge necessary to develop, organize, and administer DAPE programs supported by DAPE historical and philosophical foundations, legal bases, the IEP process, resources, and an understanding of health-related physical and motor fitness, assistive technology, and adapted equipment. Students assess fitness, motor and behavioral skills of three K-12 students with identified disabilities at a local school. Using assessment information, students develop DAPE programs for elementary, middle, and secondary school levels. Programs reflect individual student goals and objectives. The course includes 15 hours of required field experience. Prerequisites: SPED 3600, SPED 3650, co-requisite SPED 3655.

PHED 4515 DAPE Teaching Strategies (3 credits)
Second in a series of three courses, DAPE Teaching Strategies provides knowledge and practical experiences necessary for future teachers to develop individual DAPE lessons based on typical and atypical motor development patterns, to deliver lesson plan content using best practice instructional strategies, behavioral interventions, safe learning environments and methods of communicating with nonverbal students. Students will teach the lesson plans to K-12 DAPE students. The course includes 30 hours of required field experience. Prerequisites: SPED 3600, SPED 3650, SPED 3655; PHED 4514.

PHED 4516 The DAPE Professional (3 credits)
Third in a series of three courses, The DAPE Professional: provides students with opportunities to combine content, theory and research with practical experiences in DAPE programming and teaching strategies. This capstone course allows students to cultivate and maintain positive, collaborative relationships with students, families, and other professional, and the community to support student development and educational process. This course includes 20 hours of required field experience. Prerequisites: SPED 3600, SPED 3650, SPED 3655; PHED 4514, PHED 4515.

PHED 4920 DGS: (1 credit)
When taken as Exercise Science Seminar the following description applies: Intended as a capstone course to prepare the Exercise Science major for employment, internship/job procurement, or continuing education in a graduate program. This course integrates discussion of strategies for professional development, as well as providing quality written composition on employment/graduate program goals and objectives. Prerequisite: Senior status or consent of instructor. When taken as Physical Education Seminar the following description applies: Intended as a capstone course to prepare the physical education major for employment, student teaching/job procurement, or continuing education in a graduate program. This course integrates discussion of strategies for professional development, as well as providing quality written composition on employment/graduate program goals and objectives. Prerequisite: Senior status or consent of instructor. When taken as Sport Management Seminar the following description applies: Intended as a capstone course to prepare the sport management major for employment; internship/job procurement, or continuing education in a graduate program. This course integrates discussion of strategies for professional development, as well as providing quality written composition on employment/graduate program goals and objectives. Prerequisite: Senior status or consent of instructor.

PHED 4921 Varsity Sport: (1 credit)
Varsity Sport - Participation credit, may be taken once per year of eligibility.

PHED 4970 Internship (1-12 credits)
When taken as practicum in athletic coaching, the following description applies: Application of the principles and practices in athletic coaching. A 30 hour practical coaching experience under the guidance and supervision of a licensed coach. This practicum must be conducted at the high school level. Appropriate forms must be filed with the department chairperson. Prerequisites: Completion of at least 70 percent of Physical Education Major or Coaching Specialist Program or consent of instructor. When taken as Internship in Exercise Science, the following description applies: This course is for the purpose of providing a supervised field internship experience in an exercise, fitness, and/or wellness-related setting, including hospitals, corporations, private fitness-facilities, and governmental agencies. Or, the internship may take the form of a special project or research on a topic relevant to exercise science. Prior approval must be obtained from the student's internship advisor. A journal, written paper, and/or oral presentation is to be presented following the learning experience. The student is expected to complete 30 hours per credit. Prerequisites: PHED 4160 and PHED 4170, or consent of instructor. When taken as Sport Management internship, the following description applies: Sport management majors are required to complete a field experience that is relevant to their career goals. The internship needs to provide an opportunity for the student to apply the different theories and concepts learned from class in a practical setting through: observation, planning, decision-making, committee work, leadership, operation management, individual projects, and group projects. Required: 400 hours for 12 credit internship to meet accreditation guidelines. Prerequisite: Consent of instructor. When taken as Practicum in Physical Education Teaching, the following description applies: A supervised experience in teaching K-10 students in physical education. Emphasis is on meeting the Minnesota Board of Teaching requirements for physical education majors. Required: A minimum of 30 practicum hours per credit. Prerequisite: PHED 3505 and PHED 3604.

All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE

1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS