EXERCISE SCIENCE

Exercise science is the study of the movements of the human body that contribute to fitness, holistic wellness, and longevity. Exercise science courses provide an in-depth view of topics within the exercise science fields such as exercise physiology, the care and prevention of athletic injuries, anatomical kinesiology, nutrition for health, exercise testing and prescription, sport and exercise psychology, and wellness coaching.


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Department: Health and Human Performance
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Programs

Transfer
- Exercise Science/Kinesiology - Associate of Arts Oregon Transfer (AAOT) (https://catalog.cocc.edu/programs/exercise-science/exercise-science-kinesiology-aaot/)
- Pre-Physical Therapy - Associate of Arts Oregon Transfer (AAOT) (https://catalog.cocc.edu/programs/exercise-science/pre-physical-therapy-aaot/)

Courses

HHP 131 Introduction to Exercise/Sport Science (3 Credits)
Recommended preparation: WR 065 or higher.
Introduces students to the profession of exercise science including an overview of basic concepts and careers in exercise physiology, athletic training, personal training, coaching, sports medicine, physical therapy and fitness management. Provides a comprehensive introduction to any student who is considering a career in the area of health, fitness, wellness, exercise physiology and sports medicine. Also, includes guest speakers currently working in the profession, as well as tours of local fitness facilities. Various fitness certifications are compared and contrasted.

HHP 188 Special Studies: HHP (1-6 Credits)
Explores topics of current interest in the discipline.

HHP 199 Selected Topics: Health and Human Performance Activities (1-6 Credits)
Includes both introductory courses and activities.

HHP 216 Sociocultural Dimensions of Physical Activity (3 Credits)
This course will provide an overview of physical activity in contemporary society. It will look at relationships with the social processes: interrelationships between physical activity and cultural institutions.

HHP 246 Introduction to Adapted Physical Activity (3 Credits)
This course will provide an overview of cognitive, neuromuscular, sensory, and orthopedic impairments; understanding accessible physical activity programs for individuals with disabilities. This is a hybrid course where approximately 50% of the course will take place in a traditional face-to-face classroom and 50% will be delivered via Blackboard, your online learning management system, where you will interact with your classmates and with the instructor.

HHP 259 Care and Prevention of Athletic Injury (3 Credits)
Recommended preparation: BI 231, HHP 260 and WR 065 or higher.
Introduces management of athletic injuries, injury recognition and assessment, proper care and treatment of athletic injuries and rehabilitation of athletic injuries. Emphasizes hands-on experience included for mastery of surface anatomy, injury assessment and proficiency in rudimentary injury care and rehabilitation practices.

HHP 260 Anatomical Kinesiology (4 Credits)
Recommended preparation: BI 231 and WR 065 or higher.
This is an introduction to the science of human movement (kinesiology). The class explores the anatomical elements such as muscle action and joint structure and function involved in the gross motor movement. Major emphasis will be on structural anatomy, primary movers of each joint, and muscle utilization for specific sport actions.

HHP 261 Exercise Physiology (4 Credits)
Recommended preparation: MTH 020 or higher and WR 065 or higher.
This course is designed to provide the student with an introductory foundation for understanding the physiology associated with exercise. Emphasis will be placed on how the various tissues and systems of the body adjust to acute work stress and ultimately adapt to chronic exercise training. Course materials will include metabolic, musculoskeletal, cardiovascular, and respiratory adaptations to exercise and exercise training.

HHP 262 Exercise Testing and Prescription (3 Credits)
Recommended preparation: HHP 260 and HHP 261.
The intent is to provide a practical guide for administering safe exercise testing as well as development of safe and effective exercise prescription for all clients including special populations. Specific content to be addressed includes: initial client consultation, risk factor classification, performance of hands-on exercise testing, prescribing appropriate aerobic, anaerobic, flexibility, and resistance exercise plans, periodization, prevention of overtraining, metabolic calculations, & legality including HIPAA laws.

HHP 267 Wellness Coaching Fundamentals (3 Credits)
Recommended preparation: WR 65 or higher.
Explore components of behavior change by providing an overview of the dimensions of wellness, coaching technique and models in health. Foundational concepts of positive psychology, including the history, theory and ethics, as well as mindfulness, appreciative inquiry and self-efficacy will be examined and applied.

HHP 270 Sport and Exercise Psychology (3 Credits)
Recommended preparation: WR 065 or higher.
Introduces broad range of topics relevant to sport and exercise psychology, including sport personality, motivation, psychological skills training, energy management, attention, imagery, competitive anxiety and mental relaxation. Content is relevant for coaches, athletes and others interested in the psychology of sport.
HHP 280A Practicum-Exercise Science (1-2 Credits)
Prerequisites: instructor approval.
Recommended preparation: complete a minimum of three exercise science courses.
Provides exercise science practicums by the department in conjunction with the community in health & fitness programs including group fitness, personal training, wellness coaching, research, clinical professions such as physical therapy, occupational therapy, athletic training, and cardiac rehabilitation. P/NP grading.

HHP 280B Practicum- Exercise Science (1-2 Credits)
Prerequisites: instructor approval.
Recommended preparation: complete a minimum of three exercise science courses.
Provides Exercise Science practicums by the department in conjunction with the community in health & fitness programs including group fitness, personal training, wellness coaching, research, clinical professions such as physical therapy, occupational therapy, athletic training, and cardiac rehabilitation. P/NP grading.

HHP 298 Independent Study: HHP (1-4 Credits)
Prerequisites: instructor approval.
Recommended preparation: prior coursework in the discipline.
Individualized, advanced study in health and human performance to focus on outcomes not addressed in existing courses or of special interest to a student. P/NP grading.

HHP 299 Selected Topics: HHP (1-3 Credits)
Health topics requiring advanced level of critical thinking, writing and/or other skills.

HHPA 102 Beginning Rock Climbing (1 Credit)
Provides an introduction to rock climbing.

HHPA 103 Training for Rock Climbing (1 Credit)
Provides training for rock climbing.

HHPA 104 Intermediate Rock Climbing (1 Credit)
This class focuses on preparing the student to transition into a lead sport climber. This class builds upon the skills covered in the beginning rock climbing courses, including advanced belay techniques, belay/rappel transitions, and anchor building in a sport climbing environment. Students will develop a plans to improve their climbing techniques, strength and endurance.

HHPA 105 Backpacking (1 Credit)
Provides instruction for backpacking.

HHPA 106 Snowshoeing (1 Credit)
Provides an introduction to snowshoeing.

HHPA 107 Backcountry Skiing (1 Credit)
Provides an introduction to backcountry skiing.

HHPA 109 Whitewater Kayaking I (1 Credit)
Provides introduction to whitewater kayaking.

HHPA 110 Whitewater Rafting I (1 Credit)
Provides introduction to whitewater rafting.

HHPA 112 Beginning Mountain Biking (1 Credit)
Introduction to mountain biking which will include local trail systems.

HHPA 114 Intermediate Mountain Biking (1 Credit)
Designed to build upon fundamental mountain bike skills. Trail etiquette and basic nutrition will be reviewed. Introduces intermediate bike maintenance and advanced riding techniques. Rides will take place on local trails. Previous mountain biking experience is necessary.

HHPA 115 Wilderness Training: Beginning (1 Credit)
Introduces a variety of outdoor activities, which may include: rock climbing, whitewater rafting, kayaking, canoeing, snowshoeing, caving, hiking, and cross-country skiing. Develops basic skills in outdoor activities and learns about appropriate preparation for participation.

HHPA 120 Tai Chi/Qigong (1 Credit)
Introduces the basic techniques of Tai Chi Yang style simplified form and three Qigong exercises, as well as theories and concepts for better health and relaxation through meditation in movement. Can accommodate all levels.

HHPA 122 Yoga-Beginning (1 Credit)
Introduces the basic techniques of yoga incorporating a wide range of yoga styles. Classes vary according to instructor offerings, which include Ashtanga, Hatha, Vinyasa, Yin, Restorative and Kundalini.

HHPA 125 Yoga-Intermediate (1 Credit)
Appropriate for any student who has a yoga background and is familiar with basic yoga postures, breathing and intentions. Self-exploration is enhanced through the introduction of variations of alternative movements to basic poses such as arm balances. Following a dynamic warm-up, students will participate in a flow-type session with quick movements to increase heart rate. Deep stretch and shavasana will conclude each class. Students will often work in pairs on advanced postures.

HHPA 126 Yoga-All Levels (1 Credit)
Modification and additional variation in postures for students wanting a more challenging practice, using a blend of different yoga styles. Appropriate for all levels.

HHPA 127 Yoga for Athletes (1 Credit)
Designed for anyone (novice to advanced) who aspires to utilize the benefits of yoga to boost their athletic performance in any sport. Although not required, it may be helpful to have had an introductory course prior to this class. A dynamic, flow-style of Vinyasa practice linking breath and movement with modifications emphasizing safety and anatomical clarity. The practice will utilize traditional asanas (poses) to build a foundation for a robust athletic yoga tool. The importance of strength will be equally emphasized with Yin like deep-style stretching. Rest and recovery will be given equal time with an intro to the benefits of restorative practice utilizing props (bolsters).

HHPA 128 Yoga/Pilates Blend (1 Credit)
Focuses on a blend of two modalities, with the flexibility of yoga and core strength training of Pilates.

HHPA 130 Total Fitness (1 Credit)
High-intensity, physically demanding activity class geared toward improving overall physical fitness in a supportive team atmosphere. Various forms of games, skills, exercises, and activities will be used to improve weakness areas as well as further enhance areas in which the student already excels physically. All levels welcome but a positive, can-do attitude is a must.

HHPA 132 Jogging (1 Credit)
Focuses on improving running economy and cardiovascular fitness through various running-related activities. Students will run at both on and off campus sites. Runners of all levels welcome.

HHPA 133 Ski Conditioning-Nordic (1 Credit)
An outdoor/indoor conditioning class for all levels of Nordic skiers. Goal of the class is to provide ski-specific cardiovascular fitness and muscular strength as well as improving Nordic ski technique. Various ski-specific drills and exercises will be used in a fun group atmosphere.
HHPA 134 Circuit Training (1 Credit)
Traditional circuit training class for total body conditioning that includes interval training via different apparatuses and core circuit training using various forms of equipment. Emphasizes improvement in both core strength and cardiovascular fitness. Appropriate for all levels of fitness and exercise experience.

HHPA 135 Cycling: Studio (1 Credit)
Introduces indoor studio cycling skills to all fitness and experience level of cyclists. Emphasizes proper form and designed to provide a fun mode of enhancing cardiovascular fitness in a group setting.

HHPA 136 Boot Camp (1 Credit)
Introduction to exercises that improve cardiovascular endurance, muscular strength and flexibility in a supportive team atmosphere. Utilizes interval training, core strength, plyometrics, running, games and weights and is appropriate for all levels of fitness and experience.

HHPA 137 Progressive Walking (1 Credit)
A group class designed to prepare and progressively improve cardiovascular fitness through walking. An emphasis will be placed on monitoring intensity through heart rate. All levels of walkers are welcome.

HHPA 138 Ki Aikido (1 Credit)
Introduces the martial art of Ki Aikido, a form of self-defense and non-fighting to all levels of experience in Ki Aikido. It is based upon coordination of mind and body, not only in throwing, but also in the art of falling (ukemi).

HHPA 140 Basketball (1 Credit)
This activity class teaches all the fundamental skills and rules of basketball to all levels of basketball players. There will be an emphasis on team play.

HHPA 141 Golf (1 Credit)
Held at local golf courses and is taught by local professional golf instructors. Instruction of basic golf skills to all levels of golf players. Golf clubs may be available for use in class (contact the department for more information).

HHPA 142 Beginning Rugby (1 Credit)
Familiarizes students with the rules, skills, strategy, fitness level and basic concepts of modern Rugby Union Football. Equips students to be an informed Rugby participant.

HHPA 143 Softball (1 Credit)
Focuses on fundamental skill development and team play for all levels of softball players.

HHPA 144 Soccer (1 Credit)
Focuses on fundamental skill development and team play for all levels of soccer players.

HHPA 146 Tennis I (1 Credit)
Focuses on skill development for beginning tennis players. Students will learn through various drills and court games.

HHPA 147 Tennis II (1 Credit)
Recommended Preparation: HHPA 146. Geared toward students with intermediate or advanced tennis skills. Students will work towards improving current tennis skill level and strategy by means of practice as well as feedback from the instructor.

HHPA 148 Volleyball-All Levels (1 Credit)
Focuses on fundamental volleyball skill development and team play for beginning students and continuing students who want to enhance their skill level.

HHPA 149 Volleyball-Doubles (1 Credit)
Provides rules and strategy of doubles volleyball. Includes communication with teammates on the courts due to the faster pace of the game.

HHPA 150 Cultural Dance Fitness (1 Credit)
Designed to introduce individuals to various types of energetic dance styles from Africa to the Caribbean in a fun, dance fitness setting as well as learning the art of choreography. Integrates several dance styles (i.e., West African, Dance Hall, Hip-Hop) to a variety of beats and rhythms from around the world. Designed for all levels.

HHPA 153 Aerobic Dance-Hip Hop (1 Credit)
Explains the growing awareness of hip hop as a mind-body, dance-style aerobic movement. Includes choreographed moves with each class and building upon each other as a sequenced routine.

HHPA 154 Dancercise (1 Credit)
High-energy activity class emphasizing dance movements including jazz, contemporary and salsa styles.

HHPA 156 Pilates-Beginning (1 Credit)
Through Pilates exercises, this class familiarizes students with the awareness of core flexibility and strength, relative muscle groups and joint actions of the core. Students will learn Pilates vocabulary and training techniques, including specific stretching, as well as stretching for general health. Also provides proper sequence form for stretching, the slide, rings, exercise balls and weights for cardio and overall balance.

HHPA 157 Pilates-All Levels (1 Credit)
Includes a brief review of Pilates fundamentals (proper spine alignment, elongation, thoracic breath and core control, including the use of appropriate Pilates equipment). Students will learn several sequences of Pilates exercises with appropriate modifications for all fitness levels.

HHPA 158 Stretch and Relaxation (1 Credit)
Introduces students to progressive stretching activities and emphasizes the value of stretching to the overall relaxation process.

HHPA 159 Barre Body (1 Credit)
Combines ballet & Pilates fundamentals with motivating music to improve fitness through use of ballet or body barres. This low-impact class is ideal for all fitness levels without traditional gym equipment. Muscles are engaged in strategic patterns that intermix small isometric movements with greater range of motion working toward a defined physique.

HHPA 170 Snowboarding I (1 Credit)
For beginning snowboarders. Students will learn the fundamentals of snowboarding with qualified instructors. Equipment must be provided by the student.

HHPA 171 Snowboarding II (1 Credit)
For intermediate to advanced snowboarders. Students will be provided instruction to enhance their current skill level in snowboarding. Equipment must be provided by the student.

HHPA 172 Snowboarding III-Competitive Freestyle Riding (1 Credit)
Focuses on freestyle techniques for advanced riders. Emphasis of instruction is on freestyle maneuvers, including straight airs, 180’s, and straight airs with grabs, as well as etiquette when riding in the half-pipe, slope-style facilities and natural freestyle terrain. Equipment must be provided by the student.
HHPA 173 Brazilian Jujitsu (1 Credit)
Modified version of traditional Japanese Jujitsu and martial art sport that focuses on gaining a dominant position over an opponent. Students will learn proper techniques, using leverage, sparring and self-defense drills to gain self-confidence.

HHPA 174 Swimming I-Swim Fitness and Technique (1 Credit)
Swim Fitness and Technique helps student feel safe and comfortable in the water for at least ten minutes at a time, incorporating and refining swimming strokes.

HHPA 176 Masters Swimming (1 Credit)
Designed to strengthen swimming stroke skills to the advanced level. Introduces advanced concepts of fitness swimming. Prepares students for a lifetime of participation in swimming and racing if desired. Students will attend organized masters swim team practices. Previous swimming experience expected.

HHPA 177 Swimming Fundamentals (1 Credit)
Basic swim instruction for individuals with limited to no swim experience. Learn basic swim skills (floating, breathing techniques, and flutter kicking), swimming theory concepts and strokes (front and back crawl and breaststroke) at your own pace.

HHPA 178 Ski Alpine I (1 Credit)
Designed for beginning downhill skiers. Learn the fundamentals of skiing with qualified instructors. Equipment must be provided by the student.

HHPA 179 Ski Alpine II (1 Credit)
Designed for intermediate to advanced alpine skiers. Provides instruction to enhance current ski skill level. Equipment, including helmet, must be provided by the student.

HHPA 182 Tae Kwon Do (1 Credit)
A martial art form that if properly performed, improves cardiovascular endurance, muscular strength, and flexibility. Instruction includes techniques of self-defense, proper Tae Kwon Do etiquette, and a cultural introduction of Dojang.

HHPA 183 Water Aerobics (1 Credit)
Introduces water aerobics which improves cardiovascular endurance, muscular strength and flexibility in a low-impact environment.

HHPA 184 ZUMBA (1 Credit)
ZUMBA dance fitness fuses hypnotic rhythms and easy-to-follow moves to create a dynamic fitness program. This course is designed to include cardiovascular strengthening, muscle toning with resistance and movements to enhance flexibility and balance.

HHPA 185 Weight Training (1 Credit)
Covers the basic principles of weight training and proper use of weight room equipment and safety. The course includes a variety of weight training methods and incorporates core strength and flexibility activities. Students will develop their own weight lifting program throughout the term.

HHPA 186 Stand Up Paddle Boarding (1 Credit)
Introduction into the world of stand-up paddle boarding. Designed for all levels, teaches the fundamentals of stand-up paddle boarding with a qualified instructor. Introduces skills for proper paddling technique, safety considerations and trip planning. Participants should be comfortable in and around the water. Equipment provided.

HHPA 199 Selected Topics: Health and Human Performance (1-4 Credits)
This course is in development.