**SCHOOL OF BIOLOGICAL AND POPULATION HEALTH SCIENCES**

The School of Biological and Population Health Sciences comprises the fields of kinesiology, nutrition, and the public health disciplines of biostatistics, epidemiology, global health, and environmental and occupational health. These disciplinary approaches link individual biology and behavior to population and environmental health to better understand how environmental and behavioral factors, including food and nutrition, physical activity, water, pollution, carcinogens, biohazards, etc., influence the development and progression of a biological disease. Applying the quantitative methods of epidemiology and biostatistics allows a better understanding of the causes of population-level disease as well as methods of intervention and prevention.

The School of Biological and Population Health Sciences houses the undergraduate degrees of Kinesiology, and Nutrition. Nationally recognized programs prepare students for careers as athletic trainers, dietitians, medical and allied health science professionals, teachers in physical education, nutritionists, researchers, personal trainers, and fitness and nutrition professionals. The majors and their options are described below.

The Bachelor of Science degree in Public Health is offered through the School of Social and Behavioral Health Sciences (http://health.oregonstate.edu/sbhs/).

The School of Biological and Population Health Sciences houses the Masters in Public Health (http://health.oregonstate.edu/degrees/graduate/public-health/mph/) (MPH) options of biostatistics, epidemiology, global health, environmental and occupational health, and physical activity. Environmental and Occupational Health, Epidemiology, and Global Health are also areas of concentration within the Public Health doctoral program (http://health.oregonstate.edu/degrees/graduate/public-health/phd-program/).

Master’s and doctoral degrees are available in Nutrition (http://health.oregonstate.edu/degrees/graduate/nutrition/) and Kinesiology (http://health.oregonstate.edu/degrees/graduate/kinesiology/).

**Undergraduate Studies**

**Preparation**

Entering first-year and undergraduate transfer students should prepare to enter the College of Public Health and Human Sciences with a strong foundation in the sciences, balanced with good writing and critical thinking skills. Students transferring from other institutions are best prepared for the college curriculum if they have taken chemistry or biology or both.

**Admission**

Any student who has met the admission requirements of Oregon State University may be admitted to a nutrition or exercise and sport science program of study. To transfer from another OSU college, the student must meet with an academic advisor in the College of Public Health and Human Sciences’ Office of Student Success.

**Physical Activity Courses**

The Physical Activity Course (PAC) Program is an elective, academic-credit program designed to provide OSU students with the opportunity to learn and engage in a wide variety of physical activities with the goal of promoting health and lifelong participation in physical activity. Students may take any number of PAC credits, but only 11 credits may be counted toward graduation. Successful completion of any PAC section will satisfy the one-credit laboratory requirement of the fitness category of the baccalaureate core. Courses may be repeated for credit and a grade. There is a PAC fee for each class, and some courses have additional fees. All fees are listed in the Schedule of Classes (https://classes.oregonstate.edu/). Student accounts are billed upon registration. Refunds of the PAC fee are automatic upon dropping or withdrawing from the course and follow university policies as listed in the OSU Academic Catalog. Some additional fees are refunded through the PAC Office (Langton 123). Some courses are available as Non-Credit (https://health.oregonstate.edu/pac/non-credit/) options. Social dance classes are listed with a men’s and a women’s section in order help balance the number of students in the traditional lead-and-follow roles within the same class.

**Undergraduate Programs**

**Majors**

- Kinesiology (http://catalog.oregonstate.edu/college-departments/public-health-human-sciences/school-biological-population-health-sciences/kinesiology-bs-hbs/)
  - Option:
    - Pre-therapy and Allied Health
  - Options:
    - Pre-Dietetics
    - Dietetics

- Nutrition and Health Sciences

**Minors**

- Exercise Physiology (http://catalog.oregonstate.edu/college-departments/public-health-human-sciences/school-biological-population-health-sciences/exercise-physiology-minor/)
- Nutrition (http://catalog.oregonstate.edu/college-departments/public-health-human-sciences/school-biological-population-health-sciences/nutrition-minor/)

**Graduate Programs**

**Majors**

- Adapted Physical Education (http://catalog.oregonstate.edu/college-departments/public-health-human-sciences/school-biological-population-health-sciences/adaptive-physical-education-mape/)
• Athletic Training (http://catalog.oregonstate.edu/college-departments/public-health-human-sciences/school-biological-population-health-sciences/athletic-training-matrn/)
• Kinesiology (http://catalog.oregonstate.edu/college-departments/public-health-human-sciences/school-biological-population-health-sciences/kinesiology-ms-phd/)

Option:
• Adapted Physical Activity

• Nutrition (http://catalog.oregonstate.edu/college-departments/public-health-human-sciences/school-biological-population-health-sciences/nutrition-ms-phd/)

Minors
• Epidemiology (http://catalog.oregonstate.edu/college-departments/public-health-human-sciences/school-biological-population-health-sciences/epidemiology-graduate-minor/)
• Ergonomics (http://catalog.oregonstate.edu/college-departments/public-health-human-sciences/school-biological-population-health-sciences/ergonomics-graduate-minor/)
• Kinesiology (http://catalog.oregonstate.edu/college-departments/public-health-human-sciences/school-biological-population-health-sciences/kinesiology-graduate-minor/)
• Nutrition (http://catalog.oregonstate.edu/college-departments/public-health-human-sciences/school-biological-population-health-sciences/nutrition-graduate-minor/)

Professional Programs
• Doctor of Physical Therapy (http://catalog.oregonstate.edu/college-departments/public-health-human-sciences/school-biological-population-health-sciences/physical-therapy-dpt/)

Russell Turner, Interim Head
127 Milam Hall
Oregon State University
Corvallis, OR 97331
Phone: 541-737-9545
Email: russell.turner@oregonstate.edu
Website: http://health.oregonstate.edu/bphs (http://health.oregonstate.edu/bphs/)

Faculty Listings: https://health.oregonstate.edu/directory (https://health.oregonstate.edu/directory/)

Health and Human Sciences (HHS)
HHS 001, SERVICE LEARNING, 0 Credits
Engage in a service-learning or community engagement experience where skills and knowledge are applied to meet an authentic community-identified need. The experience will integrate meaningful community service with reflection. Through readings and discussions, critically reflect on the service in order to increase understanding of the discipline, gain a broader appreciation of the discipline, enhance a sense of civic responsibility, and strengthen connections with communities.

HHS 002, LEADERSHIP, 0 Credits
Provides basic personal and interpersonal leadership skills that can be used within and outside of a work setting. Through practice, the leadership experience helps explore motivation, decision-making, time management, power, team building, conflict, ethics, dealing with change, communication skills, and diversity issues.

HHS 003, UNDERGRADUATE RESEARCH, 0 Credits
Engage in research activities appropriate to the discipline; and through the research experience, acquire skills, techniques, and knowledge relevant to the field of study. In consultation with a faculty mentor, engage in research activity, and make and execute a plan for a project.

HHS 199, SPECIAL TOPICS, 1-16 Credits
This course is repeatable for 16 credits.

HHS 206, PROJECTS, 1-16 Credits
This course is repeatable for 16 credits.
Available via Ecampus

HHS 231, *LIFETIME FITNESS FOR HEALTH, 2 Credits
Provides up-to-date and relevant health and wellness information; practical strategies to implement positive behavior change in physical activity, nutrition, and stress management throughout college and the lifespan. (Bacc Core Course)
Attributes: CSFT – Core, Skills, Fitness
Equivalent to: HHP 231, HHS 231H
Available via Ecampus

HHS 231H, *LIFETIME FITNESS FOR HEALTH, 2 Credits
Provides up-to-date and relevant health and wellness information; practical strategies to implement positive behavior change in physical activity, nutrition, and stress management throughout college and the lifespan. (Bacc Core Course)
Attributes: CSFT – Core, Skills, Fitness
Designator
Equivalent to: HHS 231

HHS 241, *LIFETIME FITNESS, 1 Credit
Assessment, evaluation and practice of physical fitness and health behaviors leading to the development of a personal fitness program. (Bacc Core Course)
Attributes: CSFT – Core, Skills, Fitness
Available via Ecampus

HHS 399, SPECIAL TOPICS, 1-16 Credits
This course is repeatable for 18 credits.

HHS 440, GLOBAL NUTRITION, 3 Credits
Examines causes and consequences of nutritional problems including malnutrition, both under- and overnutrition, that impact health, developmental capacity, and economic well-being of populations in developing societies. Explores policies, practices, and cultural approaches to improving nutritional status at the household, local and international levels.
Available via Ecampus
HHS 513, INTEGRATED APPROACH TO PUBLIC HEALTH I, 6 Credits
An integrated approach to introduce students to the core knowledge and methods used in public health, including evidence-based approaches to public health, public health and health care systems, planning and management to promote health, and policy in public health. This course is the first of a two-part course sequence.
Available via Ecampus

HHS 514, INTEGRATED APPROACH TO PUBLIC HEALTH II, 6 Credits
An integrated approach to introduce students to the core knowledge and methods used in public health, including: evidence-based approaches to public health; public health and health care systems; planning and management to promote health; and policy in public health. This course is the second of a two part course sequence.
Prerequisite: HHS 513 with B- or better
Available via Ecampus

HHS 517, CASE STUDIES IN PUBLIC HEALTH PRACTICE, 3 Credits
Case-based learning to illustrate the complexity of public health issues and to demonstrate the need for integrated approaches for developing and implementing successful strategies in public health practice. Students will apply a wide range of knowledge and skills essential to public health practice that relate to outbreak investigation, policy analysis, regulatory decision-making, ethics, program development, program evaluation, research synthesis, screening programs, working with stakeholders, health risk communication, and disaster preparedness.
Prerequisite: H 513 with B- or better or HHS 514 with B- or better
Available via Ecampus

HHS 526, LINEAR REGRESSION IN PUBLIC HEALTH, 2 Credits
Biostatistical tools for scientific applications in public health using linear regression analysis. Confounding, effect modification, variable selection, assessing model fit, observational studies, and exploratory data analysis. Emphasis on the use of statistical packages for analyzing public health data.
Prerequisite: H 524 with B- or better
This course is repeatable for 4 credits.
Available via Ecampus

HHS 527, LOGISTIC REGRESSION IN PUBLIC HEALTH, 2 Credits
Biostatistical tools for scientific applications in public health using logistic regression analysis. Confounding, effect modification, variable selection, assessing model fit, exploratory data analysis, and observational studies. Emphasis on the use of statistical packages for analyzing public health data.
Prerequisite: H 524 with B- or better

HHS 537, EVIDENCE-BASED LEADERSHIP IN PUBLIC HEALTH, 3 Credits
Examine collaboration and working together, and offer opportunities to develop skills for successful and effective group functioning. Students will be challenged to examine personal strengths (and the strengths of others) as they relate to leadership and followership. Explores evidence-based management — identifying and using organizational and scientific data in decision making.
Prerequisite: H 536 with B- or better
Available via Ecampus

HHS 540, GLOBAL NUTRITION, 3 Credits
Examines causes and consequences of nutritional problems including malnutrition, both under- and overnutrition, that impact health, developmental capacity, and economic well-being of populations in developing societies. Explores policies, practices, and cultural approaches to improving nutritional status at the household, local and international levels.
Available via Ecampus

HHS 541, PUBLIC HEALTH PERSPECTIVE ON GLOBAL FOOD SECURITY, 3 Credits
Explore food insecurity and hunger in the U.S. and global contexts, including examination of the causes, correlates, and consequences of hunger and community, national, and international food safety nets.

HHS 550, COMMUNICATING FOR PUBLIC HEALTH POLICY IMPACT, 3 Credits
Successful public health professionals communicate clearly and in compelling ways with non-scientific audiences. In this hands-on course, they will learn how to effectively communicate public health messages. Tools are used to determine the appropriate audience for any public health policy topic and how to convey the message effectively through various channels, including social media and presentation to policymakers. Professionals in the field, including those in legislative and media roles, will share examples of effective communication and provide constructive feedback on students’ work.

HHS 578, EVIDENCE-BASED PUBLIC HEALTH I, 3 Credits
Evidence-based public health is the process of integrating science-based interventions with community preferences to improve the health of populations. This is the first in a two-course series and provides theoretical and practical bases to identify, implement and evaluate evidence-based research (i.e. programs, surveillance, policies). Students will develop skills to select and adapt evidence-based public health programming for a specific community and/or population.
Prerequisite: H 513 with B- or better or HHS 514 with B- or better
Available via Ecampus
HHS 579, EVIDENCE-BASED PUBLIC HEALTH II, 3 Credits
Evidence-based public health is the process of integrating science-based interventions with community preferences to improve the health of populations. This is the second in a two-course series. Applies science and adaptation frameworks learned in the first course to the development of a program plan. Provides instruction and application of program planning and program evaluation frameworks. Course learning is synthesized through the development of a grant proposal for adapted public-health program plus evaluation plan.
Prerequisite: H 575 with B- or better and HHS 578 [B-]
Available via Ecampus

HHS 580, GRANT WRITING FOR PUBLIC HEALTH PRACTITIONERS, 4 Credits
Provides an introduction to principles of grant writing, with an emphasis on grants seeking funding from national, regional, or local entities (e.g., CDC, foundations) that support research and program that aim to improve community health through health promotion. There will be a focus on grants that MPH-level practitioners seek to conduct research, enhance practice, and/or support delivery of programs within communities. Students will have the opportunity to integrate skills developed through prior courses in the context of writing a grant proposal.
Prerequisite: H 515 with C- or better and H 575 [C-] and H 576 [C-]

HHS 584, SURVEILLANCE AND FIELD EPIDEMIOLOGY FOR PUBLIC HEALTH, 3 Credits
A review of public health surveillance systems, and the continuum of communicable disease surveillance into field epidemiology and other responses to identified events.
Prerequisite: H 524 with B- or better or HHS 514 with B- or better
Available via Ecampus

HHS 590, PUBLIC HEALTH LAW, 2 Credits
Explores the use of law and policy tools to promote access to health and healthy living conditions. Examines the legal powers and duties of government at the federal, state, and local levels to ensure the conditions required for people to be healthy. Discussion of individual rights as limitations on the power of the government to act in furtherance of public health goals.
Prerequisite: H 513 with B- or better or H 514 with B- or better
Available via Ecampus

HHS 597, GLOBAL HEALTH SYSTEMS, 3 Credits
Explores key components of global health systems, using case studies of institutions, processes, and health outcomes.
Available via Ecampus

HHS 599, SPECIAL TOPICS, 1-16 Credits
This course is repeatable for 16 credits.

HHS 699, SPECIAL TOPICS, 1-16 Credits
This course is repeatable for 16 credits.

Kinesiology (KIN)

KIN 131, INTRODUCTION TO KINESIOLOGY, 1 Credit
Overview of the field; career opportunities in exercise and sport science and other professions dealing with the discipline of human movement; orientation to support services. Graded P/N.
Equivalent to: EXSS 131
Available via Ecampus

KIN 132, INTRODUCTION TO THE ALLIED HEALTH PROFESSIONS, 1 Credit
Overview of allied health professions including physical and occupational therapy, physician assistant, nursing, athletic training and others. Discuss job responsibilities, employment opportunities and educational requirements.
Equivalent to: EXSS 132

KIN 160, INTRODUCTION TO INJURY MANAGEMENT FOR THE PHYSICALLY ACTIVE, 3 Credits
Introduction to management of physical activity-related injury for the non-healthcare provider (e.g., coaches, physical educators and fitness professionals).
Equivalent to: EXSS 160

KIN 199, SPECIAL TOPICS, 1-16 Credits
Equivalent to: EXSS 199 This course is repeatable for 16 credits.

KIN 201, RESEARCH AND SCHOLARSHIP, 1-16 Credits
This course is repeatable for 16 credits.

KIN 206, PROJECTS, 1-16 Credits
This course is repeatable for 16 credits.
Available via Ecampus

KIN 230, INTRODUCTION TO ADVENTURE PROGRAMS, 3 Credits
Foundation course for leadership opportunities in the Adventure Leadership Institute (ALI). Provides overview of history, theoretical foundations, and utilization of adventure programs in education, recreation, and therapy.
Equivalent to: EXSS 230

KIN 231, HUMAN GROUP DYNAMICS, 3 Credits
Provides students with the fundamental concepts and theories essential for understanding dynamics that occur in groups in recreation, leisure, and everyday settings.
Equivalent to: EXSS 231
KIN 232, BACKCOUNTRY LEADERSHIP, 3 Credits
Prepares students to be leaders in outdoor settings by building the practical and logistical skills needed in the effective delivery of courses and/or trips. Covers the teaching skills and essentials for trip leaders in the wilderness, including trip planning, logistics, risk management, and group interaction in the backcountry.
Prerequisite: (EXSS 230 with C or better or KIN 230 with C or better) and PAC 301 [C] and PAC 303 [C] and PAC 329 [C]
Equivalent to: EXSS 232

KIN 233, TEACHING TECHNIQUES FOR OUTDOOR ACTIVITIES, 3 Credits
Gateway course for students pursuing the Level Three Adventure Leadership Certificate. Emphasizes teaching outdoor activities at a professional level. Students work individually with the course instructor to develop, plan and implement an activity course (land or water based) for the Adventure Leadership Institute.
Prerequisite: EXSS 232 with C or better or KIN 232 with C or better
Equivalent to: EXSS 233

KIN 299, SPECIAL TOPICS, 1-3 Credits
This course is repeatable for 24 credits.

KIN 301, RESEARCH AND SCHOLARSHIP, 1-16 Credits
This course is repeatable for 16 credits.

KIN 305, READING AND CONFERENCE, 1-16 Credits
This course is repeatable for 16 credits.

KIN 306, PROJECTS, 1-16 Credits
This course is repeatable for 36 credits.

KIN 307, SEMINAR, 1-3 Credits
This course is repeatable for 36 credits.

KIN 311, MOTOR BEHAVIOR, 4 Credits
Underlying mechanisms and factors affecting movement function, skill acquisition, and changes in movement behavior across the lifespan.
Prerequisite: BI 232 with C- or better or BI 332 with C- or better
Equivalent to: EXSS 311
Available via Ecampus

KIN 312, *SOCIOCULTURAL DIMENSIONS OF PHYSICAL ACTIVITY, 4 Credits
Physical activity in contemporary society. Relationships with the social processes; interrelationships between physical activity and cultural institutions. (Bacc Core Course)
Attributes: CPSI – Core, Pers, Soc Proc & Inst; CPWC – Core, Pers, West Culture
Equivalent to: EXSS 312
Recommended: Social processes course
Available via Ecampus

KIN 314, INTRODUCTION TO ADAPTED PHYSICAL ACTIVITY, 3 Credits
Overview of cognitive, neuromuscular, sensory and orthopedic disabilities; understanding accessible physical activity programs for individuals with disabilities.
Equivalent to: EXSS 314
Available via Ecampus

KIN 321, BIOMECHANICS OF HUMAN MOVEMENT, 4 Credits
Integration of the physical laws and anatomical structures governing human movement; qualitative analytical processes emphasized.
Prerequisite: ((BI 231 with C- or better and BI 241 [C-]) or (BI 331 [C-] and BI 341 [C-])) and (MTH 112 [C-] or MTH 251 [C-])
Equivalent to: EXSS 321
Available via Ecampus

KIN 324, EXERCISE PHYSIOLOGY, 4 Credits
Physiological effects of acute and chronic exercise; factors affecting human performance; exercise training principles.
Prerequisite: (BI 233 with C- or better or BI 333 with C- or better) and (BI 231 [C-] or BI 331 [C-] and (CH 121 [C-] or CH 231 [C-] or CH 231H [C-]) and (CH 122 [C-] or CH 232 [C-] or CH 232H [C-]) and (CH 123 [C-] or CH 233 [C-] or CH 233H [C-] or CH 130 [C-])
Equivalent to: EXSS 324
Available via Ecampus

KIN 325, FITNESS ASSESSMENT AND EXERCISE PRESCRIPTION, 3 Credits
Introduction to lab- and field-based physical fitness assessments and the skills needed to design safe and effective exercise programs for apparently healthy adults. Lec/lab.
Prerequisite: KIN 324 with C- or better or EXSS 324 with C- or better
Equivalent to: EXSS 325

KIN 331, KINESIOLOGY PRACTICUM, 2 Credits
Field experience in kinesiology under professional supervision.
Equivalent to: EXSS 333

KIN 333, KINESIOLOGY PRACTICUM, 2 Credits
Field experience in kinesiology under professional supervision.
Prerequisite: KIN 333 with C- or better
Equivalent to: EXSS 334
KIN 335, KINESIOLOGY PRACTICUM, 2 Credits
Field experience in kinesiology under professional supervision.
Equivalent to: EXSS 335

KIN 341, NUTRITION FOR EXERCISE, 4 Credits
Review of the interrelationship between nutrition and exercise, including macronutrient, micronutrient and fluid needs for active individuals.
CROSSLISTED as KIN 341/NUTR 240 [C]
Prerequisite: KIN 324 with C- or better and NUTR 240 [C]
Equivalent to: EXSS 341, NUTR 341
Available via Ecampus

KIN 343, PRE-THERAPY/ALLIED HEALTH SEMINAR, 1 Credit
Provides knowledge in professional school preparation and current issues related to the allied health professions.
Prerequisite: (KIN 132 with C or better or BI 109 with C or better) and BI 231 [C] and BI 232 [C] and BI 233 [C] and BI 241 [C] and BI 242 [C] and BI 243 [C]
Equivalent to: EXSS 343
Recommended: Overall GPA of 3.0

KIN 344, PRE-THERAPY/ALLIED HEALTH PRACTICUM, 1 Credit
Clinical field experiences under the supervision of a licensed professional in the allied health or related setting enhanced with classroom discussion.
Prerequisite: KIN 324 with C- or better and BI 231 [C] and BI 232 [C] and BI 233 [C] and BI 241 [C] and BI 242 [C] and BI 243 [C]
Corequisites: KIN 343
Equivalent to: EXSS 344
This course is repeatable for 2 credits.
Recommended: Overall GPA of 3.0

KIN 345, ALLIED HEALTH PRACTICUM, 1-2 Credits
Field experience under professional supervision in an allied health or related setting. Includes arranged consultations with the instructor to discuss current issues related to the allied health professions.
Equivalent to: EXSS 345
This course is repeatable for 2 credits.
Recommended: Overall GPA 2.75

KIN 353, PHYSICAL EDUCATION TEACHER EDUCATION PRACTICUM, 2 Credits
Supervised K-12 physical education field experience with seminars. May include one instructor-approved coaching experience in school setting.
Equivalent to: EXSS 353
Recommended: OSU GPA 2.00, KIN GPA 2.50, and completion or concurrent enrollment in KIN 422 or KIN 423

KIN 354, PHYSICAL EDUCATION TEACHER EDUCATION PRACTICUM, 2 Credits
Supervised K-12 physical education field experience with seminars. May include one instructor-approved coaching experience in school setting.
Equivalent to: EXSS 354
Recommended: OSU GPA 2.00, KIN GPA 2.50 and concurrent enrollment in KIN 422 or KIN 423

KIN 355, PHYSICAL EDUCATION TEACHER EDUCATION PRACTICUM, 2 Credits
Supervised K-12 physical education field experience with seminars. May include one instructor-approved coaching experience in school setting.
Equivalent to: EXSS 355
Recommended: OSU GPA 2.00, KIN GPA 2.50 and concurrent enrollment in KIN 422 or KIN 423

KIN 360, INJURY MANAGEMENT FOR THE PHYSICALLY ACTIVE, 3 Credits
Introduction to management of physical activity-related injury for the non-healthcare provider (e.g., coaches, physical educators and fitness professionals) and pre-professional.
Available via Ecampus

KIN 370, PSYCHOLOGY OF SPORT AND PHYSICAL ACTIVITY, 3 Credits
Interaction between psychological variables and human motor performance.
Equivalent to: EXSS 370
Available via Ecampus

KIN 380, THERAPEUTIC MODALITIES, 4 Credits
Indications, contraindication, techniques, and effects of various physical agents used in the care and treatment of musculoskeletal injuries and diseases.
Equivalent to: EXSS 380

KIN 385, THERAPEUTIC EXERCISE, 4 Credits
Principles and techniques of therapeutic exercise; rehabilitative activities and programs for musculoskeletal injuries, conditions, and diseases. Lec/lab.
Prerequisite: KIN 321 with C- or better or EXSS 321 with C- or better
Equivalent to: EXSS 385

KIN 394, PROFESSIONAL ACTIVITIES: RESISTANCE TRAINING PROGRAM DESIGN, 3 Credits
Presents the conceptual basis for optimizing resistance training program designs, exercise routines for all ages and fitness levels, correct exercise technique. Lec/lab.
Prerequisite: KIN 324 with C- or better and KIN 325 [C-]
Equivalent to: EXSS 394
KIN 395, PROFESSIONAL ACTIVITIES: GROUP FITNESS, 3 Credits
Application of biomechanical, physiological, psychological and safety principles for the development of group exercise classes in a variety of modes and settings. Lec/lab.
Prerequisite: (KIN 324 with C- or better or EXSS 324 with C- or better) and (KIN 325 [C-] or EXSS 325 [C-])
Equivalent to: EXSS 395

KIN 396, PROFESSIONAL ACTIVITIES: AQUATICS, 3 Credits
Aquatic overview; emphasis on underlying hydrodynamic principles; includes safety, survival, stroke mechanics, aquatic exercise, training, games. Lec/lab/activity.
Equivalent to: EXSS 396
Recommended: PAC 250

KIN 399, SPECIAL TOPICS, 1-3 Credits
Equivalent to: EXSS 399, KIN 399H
This course is repeatable for 18 credits.

KIN 399H, SPECIAL TOPICS, 1-3 Credits
Attributes: HNRS – Honors Course Designator
Equivalent to: KIN 399
This course is repeatable for 18 credits.

KIN 401, RESEARCH AND SCHOLARSHIP, 1-16 Credits
Equivalent to: EXSS 401
This course is repeatable for 16 credits.

KIN 403, THESIS, 1-16 Credits
Equivalent to: EXSS 403
This course is repeatable for 16 credits.

KIN 405, READING AND CONFERENCE, 1-16 Credits
Equivalent to: EXSS 405
This course is repeatable for 16 credits.

KIN 406, PROJECTS, 1-16 Credits
Equivalent to: EXSS 406
This course is repeatable for 16 credits.

KIN 407, SEMINAR, 1-16 Credits
Equivalent to: EXSS 407
This course is repeatable for 16 credits.

KIN 408, WORKSHOP, 1-16 Credits
Equivalent to: EXSS 408
This course is repeatable for 16 credits.

KIN 409, PRACTICUM, 1-16 Credits
This course is repeatable for 16 credits.
Available via Ecampus

KIN 410, INTERNSHIP, 1-15 Credits
Planned experiences at selected cooperating agencies, companies or institutions; supervised by university and program personnel; supplementary conference, reports and appraisal required.
Equivalent to: EXSS 410
This course is repeatable for 20 credits.
Recommended: Completion of required courses, cumulative Kinesiology program GPA of 2.25, KIN overall GPA of 2.50 and completion of 165 credits
Available via Ecampus

KIN 411, NEUROMUSCULAR CONTROL OF HUMAN MOVEMENT, 3 Credits
Exploration and understanding of the neurological basis of human movement with emphasis on models of motor function and dysfunction.
Prerequisite: KIN 311 with C- or better

KIN 422, FACILITATING PHYSICAL ACTIVITY FOR CHILDREN AND YOUTH, 3 Credits
Students learn skills for facilitating physical activity programs for children and youth in a variety of settings, including information on the benefits of physical activity, program design, implementation and management techniques.
Prerequisite: KIN 311 with C- or better or EXSS 311 with C- or better
Equivalent to: EXSS 422

KIN 423, QUALITATIVE MOVEMENT ANALYSIS, 3 Credits
Develop observational skills to perform systematic qualitative analyses of selected physical activity performances and other human movements.
Prerequisite: (KIN 311 with C- or better or EXSS 311 with C- or better) and (KIN 321 [C-] or EXSS 321 [C-])
Equivalent to: EXSS 423

KIN 425, ANATOMICAL KINESIOLOGY, 4 Credits
Anatomical aspects of human movement; actions of bones and muscles in motor activities. Application of physical principles to factors governing anatomical function in health and injury.
Prerequisite: EXSS 321 with C- or better or KIN 321 with C- or better
Equivalent to: EXSS 425

KIN 432, PHYSICAL ACTIVITY ASSESSMENT, 3 Credits
Assessment of physical activity using subjective and objective measurement methods with focus on applications for individuals, communities, and special populations.
Equivalent to: EXSS 432

KIN 434, APPLIED MUSCLE PHYSIOLOGY, 3 Credits
Skeletal muscle structure, function, and metabolism; applications to muscle fatigue, exercise training, inactivity, and aging.
Prerequisite: KIN 324 with C- or better or EXSS 324 with C- or better
Equivalent to: EXSS 434
KIN 435, PHYSICAL ACTIVITY PROMOTION, 3 Credits
Application of behavioral science and public health research to the promotion of physical activity in individuals, groups and communities.
Prerequisite: KIN 370 with C- or better
Equivalent to: EXSS 435

KIN 437, PHYSICAL ACTIVITY, AGING, AND CHRONIC DISEASE, 4 Credits
Addresses the consequences of primary and secondary aging from an individual and public health perspective. Physiological changes associated with aging and chronic disease, functional assessment of older adults, and exercise prescription for older adults with and without chronic exercise will be emphasized.
Prerequisite: (KIN 324 with C- or better or EXSS 324 with C- or better) and (KIN 325 [C-] or EXSS 325 [C-])
Equivalent to: EXSS 437

KIN 444, ADVANCED ADAPTED PHYSICAL ACTIVITY, 3 Credits
Discuss various disability models and perspectives; reinforce determinants of physical activity; design and implement different physical activity programs and curricula for individuals with disabilities. Lec/lab.
Prerequisite: (KIN 314 with C- or better or EXSS 314 with C- or better)
Equivalent to: EXSS 444

KIN 462, BEHAVIORAL DIMENSIONS OF PHYSICAL ACTIVITY, 4 Credits
Adopting and maintaining an active, healthy lifestyle is difficult. This course explores 'why' this might be the case and 'how' to improve upon the situation.
Prerequisite: KIN 312 with C- or better and KIN 370 [C-]

KIN 474, EXERCISE PHYSIOLOGY LAB METHODS, 3 Credits
Practical experience and projects in exercise physiology lab methods, including measurement of submaximal and maximal oxygen consumption body composition, anaerobic power, and electrocardiography.
Prerequisite: (KIN 324 with C- or better or EXSS 324 with C- or better) and (KIN 325 [C-] or EXSS 325 [C-])
Equivalent to: EXSS 474

KIN 475, *POWER AND PRIVILEGE IN SPORT, 3 Credits
Issues of power and privilege in sport including race, gender, sexual orientation, disability and aggression and the consequences of long held society norms and stereotypes. (Bacc Core Course)
Attributes: CPDP – Core, Perspective, Difference/Power/Discrimination
Prerequisite: (KIN 312 with C- or better or EXSS 312 with C- or better)
Equivalent to: EXSS 475
Recommended: 6 credits of social science
Available via Ecampus

KIN 481, ^ANALYSIS OF CRITICAL ISSUES IN KINESIOLOGY, 3 Credits
Reading and interpreting current research, and using writing as a tool for learning on a critical issue in kinesiology. (Writing Intensive Course)
Attributes: CWIC – Core, Skills, WIC
Equivalent to: KIN 381
Available via Ecampus

KIN 483, TISSUE INJURY AND REPAIR, 3 Credits
Mechanics of tissue injury and the body's response and repair following injury of bone, muscle, tendon, ligament, cartilage and nervous system tissue.
Prerequisite: (BI 231 with C- or better or BI 331 with C- or better) and (BI 241 [C-] or BI 341 [C-]) and (BI 232 [C-] or BI 332 [C-]) and (BI 242 [C-] or BI 342 [C-]) and (BI 233 [C-] or BI 333 [C-]) and (BI 243 [C-] or BI 343 [C-]) or ((Z 331 [C-] and Z 332 [C-]) and Z 333 [C-] and Z 341 [C-] and Z 342 [C-] and Z 343 [C-])
Equivalent to: EXSS 483

KIN 490, SCIENTIFIC INQUIRY IN KINESIOLOGY, 4 Credits
Principles and techniques of organization, administration, interpretation and evaluation of exercise science-related data. Includes human subjects training and certification, research design, and statistical analysis using SPSS and Excel including central tendency, correlation and regression, probability, and inferential statistics (t-tests and ANOVA). Lec/lab.
Prerequisite: KIN 325 with C- or better and MTH 112 [C-]

KIN 499, SELECTED TOPICS, 1-5 Credits
Impact of human movement development on people, their movement behavior, and environment. Topics vary from term to term and year to year. May be repeated for credit when topics differ.
Equivalent to: EXSS 499
This course is repeatable for 24 credits.

KIN 501, RESEARCH AND SCHOLARSHIP, 1-16 Credits
Equivalent to: EXSS 501
This course is repeatable for 16 credits.

KIN 503, THESIS, 1-16 Credits
Equivalent to: EXSS 503
This course is repeatable for 999 credits.

KIN 505, READING AND CONFERENCE, 1-16 Credits
Equivalent to: EXSS 505
This course is repeatable for 16 credits.

KIN 506, PROJECTS, 1-16 Credits
Equivalent to: EXSS 506
This course is repeatable for 16 credits.
KIN 507, SEMINAR, 1-16 Credits
Section 1: Seminar (1). Graduate research seminar that emphasizes student oral presentations of current research topics in exercise and sport science. One credit required for all graduate students. Section 2: Current Developments (1). Discussion of contemporary issues in the exercise and sport science literature. Topics vary by term. Two credits required of all doctoral students. Section 9: International Aspects (1). Discussion of international aspects of study in exercise and sport science. Required of all doctoral students. Graded P/N.
Equivalent to: EXSS 507
This course is repeatable for 16 credits.

KIN 508, WORKSHOP, 1-16 Credits
Equivalent to: EXSS 508
This course is repeatable for 16 credits.

KIN 509, PRACTICUM, 1-16 Credits
This course is repeatable for 35 credits.

KIN 510, INTERNSHIP, 1-16 Credits
Planned experiences at selected cooperating agencies, companies or institutions; supervised by university and program personnel; supplementary conference, reports and appraisal required.
Equivalent to: EXSS 510
This course is repeatable for 26 credits.

KIN 511, INTRODUCTION TO ATHLETIC TRAINING, 4 Credits
Practice domains include injury and illness prevention and wellness protection, clinical evaluation and diagnosis, immediate and emergency care, treatment and rehabilitation, and organizational and professional health and well-being. Lec/lab.

KIN 512, APPLIED MOTOR LEARNING, 3 Credits
Application of research and theory to the teaching of motor skills with emphasis on development of instructional strategies related to modeling, knowledge of results, practice, and motivational aspects of learning.
Equivalent to: EXSS 512
Recommended: KIN 311

KIN 513, MOTOR DEVELOPMENT: AN INTEGRATIVE APPROACH, 3 Credits
Addresses the social, cultural, biological and psychological processes and health-related factors (e.g., physical activity) that jointly influence lifespan motor development (emphasis on the early years).

KIN 515, MOTOR CONTROL AND MOVEMENT DYSFUNCTION, 3 Credits
Contemporary motor control theories and their application to the development of instructional and training programs for individuals with movement disorders caused by neurological disease and/or trauma.
Equivalent to: EXSS 515
Recommended: KIN 311 and (KIN 314 or KIN 444)

KIN 520, ORTHOPEDIC ASSESSMENT OF UPPER EXTREMITY INJURIES, 4 Credits
Prevention, assessment and management of upper extremity injuries and conditions commonly encountered by the athletic trainer. Lec/lab.
Prerequisite: KIN 511 with C or better

KIN 521, ORTHOPEDIC ASSESSMENT OF LOWER EXTREMITY INJURIES, 4 Credits
Prevention, assessment and management of lower extremity injuries and conditions commonly encountered by the athletic trainer. Lec/lab.
Prerequisite: KIN 511 with C or better

KIN 522, ORTHOPEDIC ASSESSMENT OF SPINE, 4 Credits
Prevention, assessment and management of spinal injuries and conditions commonly encountered by the athletic trainer. Lec/lab.
Prerequisite: KIN 520 with C or better and KIN 521 [C]

KIN 523, BIOMECHANICS OF MOTOR ACTIVITIES, 3 Credits
Kinematic and kinetic analysis of volitional human movement with emphasis on analytical techniques and quantitative problem solving.
Equivalent to: EXSS 523
Recommended: KIN 323 or PH 201

KIN 525, BIOMECHANICS OF MUSCULOSKELETAL INJURY, 3 Credits
Mechanical causes and effects of forces applied to the musculoskeletal system, material properties of human tissues, pathomechanics of injury, and degenerative changes across the lifespan. Not offered every year.
Equivalent to: EXSS 525

KIN 531, PHYSIOLOGY OF PHYSICAL ACTIVITY AND INACTIVITY, 3 Credits
Physiologic responses to acute and chronic physical activity and inactivity with emphasis on underlying mechanisms and health outcomes.

KIN 532, PHYSICAL ACTIVITY ASSESSMENT, 3 Credits
Assessment of physical activity using subjective and objective measurement methods with focus on applications for individuals, communities, and special populations.
Equivalent to: EXSS 532

KIN 533, ENERGETICS AND BIOCHEMISTRY OF EXERCISE, 3 Credits
Metabolic and energetic responses to acute and chronic physical activity; emphasis on recent research.
Equivalent to: EXSS 533
Recommended: Undergraduate course in biochemistry or exercise physiology.
KIN 535, PHYSICAL ACTIVITY PROMOTION, 3 Credits
Application of behavioral science and public health research to the promotion of physical activity in individuals, groups and communities.
Recommended: KIN 370

KIN 536, PHYSICAL ACTIVITY IN DIVERSE POPULATIONS, 3 Credits
Addresses the social, cultural, political, and environmental determinants of physical activity and health among diverse populations. Includes examination of intersecting issues related to race, ethnicity, gender, age, disability, geography, income status, and other societal factors across the lifespan for promoting physical activity through public health strategies.

KIN 541, INTEGRATED BEHAVIORAL HEALTH IN ATHLETIC TRAINING, 3 Credits
Explores integrated behavioral health in athletic training focusing on patient-centered care. Emphasizes the multidisciplinary approach in the individualized care of behavioral health conditions including suicidal ideation, depression, eating disorders and the associated necessary referrals to additional clinical personnel.
Prerequisite: KIN 521 with C or better

KIN 544, ADVANCED ADAPTED PHYSICAL ACTIVITY, 3 Credits
Discuss various disability models and perspectives; reinforce determinants of physical activity; design and implement different physical activity programs and curricula for individuals with disabilities.
Lec/lab.
Equivalent to: EXSS 544
Recommended: KIN 314

KIN 547, INCLUSION IN PHYSICAL ACTIVITY, 3 Credits
Effectiveness of physical activity programs provided in inclusive settings. This will include a lifespan/non-categorical approach to program development.
Equivalent to: EXSS 547
Recommended: KIN 314 or KIN 444

KIN 548, ASSESSMENT AND PROGRAMMING FOR SPECIAL POPULATIONS, 3 Credits
Use of appropriate assessment procedures for developing effective psychomotor programs for the disabled.
Equivalent to: EXSS 548
Recommended: KIN 314 or KIN 444

KIN 549, PHYSICAL ACTIVITY FOR PERSONS WITH SEVERE DISABILITIES, 3 Credits
Plan, develop and implement appropriate physical activity programs, functional program design, assistive technology, instructional strategies, behavior management practices, and data analysis systems that address the needs for psychomotor performance of persons with low incidence disabilities.
Equivalent to: EXSS 549
Recommended: KIN 314 or KIN 444

KIN 550, HEALTH PROMOTION FOR PEOPLE WITH DISABILITIES, 3 Credits
Discussion will focus on disability and health, theory driving health promotion program development, guidelines for developing a program for individuals with disabilities, and program evaluation.
Equivalent to: EXSS 550

KIN 551, CURRENT TRENDS AND ISSUES IN PHYSICAL EDUCATION, 4 Credits
Current trends and issues in physical education, including curriculum development, professional ethics, instructional practices, and physical activity for the school community.
Equivalent to: EXSS 551

KIN 553, INSTRUCTIONAL ANALYSIS TECHNIQUES I, 3 Credits
Introduction to techniques of instructional analysis. Provides in-depth information and training in systematic observation techniques, raw data conversion and inter/intraobserver reliability.
Equivalent to: EXSS 553

KIN 554, INSTRUCTIONAL ANALYSIS TECHNIQUES II, 3 Credits
Laboratory/seminar experience to accompany student teaching winter and spring terms. Provides continued application of systematic observation techniques throughout the elementary student teaching experience.
Equivalent to: EXSS 554

KIN 555, SKILL ANALYSIS AND ASSESSMENT IN K-12, 3 Credits
Develop proficiency in assessing movement skills, execution of sport techniques, and game play performance. Assessment trends and practices utilized in physical education programs are included.
Equivalent to: EXSS 555

KIN 556, INSTRUCTIONAL SKILLS I, 3 Credits
Skills of planning, implementing, and evaluating programs of instruction in physical education, grades K-12.
Equivalent to: EXSS 556
KIN 557, INSTRUCTIONAL SKILLS II, 2 Credits
Applying and refining skills of planning, implementing, and evaluating programs of instruction in physical education, grades K-12.
Equivalent to: EXSS 557

KIN 558, PHYSICAL EDUCATION CURRICULUM DESIGN AND ORGANIZATION, 3 Credits
Curricular programs and variations from kindergarten through grade 12, administrative policies and practices.
Equivalent to: EXSS 558

KIN 559, THE PHYSICAL EDUCATOR AS A PROFESSIONAL, 1 Credit
Transitioning to teaching, developing a portfolio, certification, obtaining a position, teacher burnout, professionalism, problems of first-year teachers, developing patterns of behavior that lead to a successful career.
Equivalent to: EXSS 559

KIN 560, MOTIVATION IN PHYSICAL ACTIVITY, 3 Credits
A social psychological approach to understanding the role of self-perceptions and cognitions in explaining motivated behavior in sport and exercise settings.
Equivalent to: EXSS 560
Recommended: KIN 370

KIN 561, PSYCHOSOCIAL FACTORS IN PHYSICAL ACTIVITY, 3 Credits
A social psychological approach to understanding the role of social interactions and contextual factors in explaining human behavior in sport and exercise settings.
Equivalent to: EXSS 561
Recommended: KIN 560

KIN 562, LIFESPAN SPORT AND EXERCISE PSYCHOLOGY, 3 Credits
Social-psychological issues across the lifespan in the context of sport and exercise.
Equivalent to: EXSS 562
Recommended: KIN 561

KIN 564, PROGRAM CAPSTONE AND SYNTHESIS, 3 Credits
Capstone course in which teacher candidates will review and update their teaching philosophy; showcase their Physical Education master’s portfolio; and develop a plan for professional development.
Prerequisite: KIN 510 with C- or better

KIN 565, MANAGEMENT OF EMERGENT CONDITIONS IN ATHLETIC TRAINING, 3 Credits
Examines the knowledge and skills required to care for emergent conditions encountered by the athletic trainer. Includes the management of a patient experiencing shock, cardiovascular emergency, respiratory emergency, head injury, spinal injury, fracture, dislocation, and conditions related to environmental factors.
Prerequisite: KIN 566 with C or better

KIN 566, GENERAL MEDICAL ASSESSMENT, 4 Credits
Prevention, evaluation, diagnosis, and management of general medical conditions commonly encountered by the athletic trainer.
Prerequisite: KIN 565 with C or better

KIN 567, PHARMACOLOGY IN ATHLETIC TRAINING, 3 Credits
Pharmacology in sports medicine, topics including, but not limited to, the mechanisms and actions of drugs commonly administered and prescribed in sports medicine environments.
Prerequisite: KIN 566 with C or better

KIN 568, ADMINISTRATIVE ISSUES IN ATHLETIC TRAINING, 3 Credits
Examines administrative aspects of athletic training program management. Including principles of risk management, strategic and operational planning, medical-legal aspects of athletic healthcare, confidentiality and documentation of patient health information, insurance and third-party reimbursement, personnel issues, and current professional issues.
Prerequisite: KIN 569 with C or better

KIN 569, RESEARCH INFORMED PRACTICE, 3 Credits
Examine the principles and skills underlying the utilization of evidence to enhance clinical practice decision-making. Includes the development of clinical questions, review and appraisal of relevant literature, and utilization of patient-centered outcome measures.
Prerequisite: KIN 520 with C or better

KIN 573, MEASUREMENT IN HUMAN MOVEMENT, 3 Credits
Equivalent to: EXSS 573
Recommended: ST 511

KIN 575, RESEARCH IN HUMAN MOVEMENT, 3 Credits
Investigation and evaluation of research methods applicable to human movement study and professional physical education.
Equivalent to: EXSS 575
Recommended: ST 511
KIN 583, CONCUSSION MANAGEMENT, 3 Credits
Examines concussions and other traumatic brain injuries encountered by the athletic trainer. Includes the prevention, assessment, rehabilitation, and management of concussions.
Prerequisite: KIN 565 with C or better

KIN 584, PHYSIOLOGY AND MANAGEMENT OF MUSCULOSKELETAL INJURIES, 3 Credits
Mechanics of musculoskeletal tissue injuries; physiologic response and repair processes of various tissues; and effects of physical agents commonly used by athletic trainers in the care and treatment of musculoskeletal injuries.
Prerequisite: KIN 511 with C or better

KIN 585, REHABILITATION II, 4 Credits
Explores the theoretical foundation and techniques of rehabilitation management in the physically active patient. Emphasizes therapeutic exercise of injuries and conditions of the upper extremity, cervical and thoracic spine using techniques of program design learned in KIN 586. Examine theory and apply manual therapy interventions.
Prerequisite: KIN 586 with C or better

KIN 586, REHABILITATION I, 4 Credits
Explores the theoretical foundation and techniques of rehabilitation management in the physically active patient. Emphasizes therapeutic exercise of injuries and conditions of the lower extremity, lumbar spine, pelvis and ribs with a focus on program design, implementation and interpretation of patient's physical status.
Prerequisite: KIN 522 with C or better

KIN 599, SPECIAL TOPICS, 1-3 Credits
Impact of human movement development on people, their movement behavior, and environment. Topics vary from term to term and year to year. May be repeated when topics differ.
Equivalent to: EXSS 599
This course is repeatable for 99 credits.

KIN 601, RESEARCH AND SCHOLARSHIP, 1-16 Credits
Equivalent to: EXSS 601
This course is repeatable for 16 credits.

KIN 603, THESIS, 1-16 Credits
Equivalent to: EXSS 603
This course is repeatable for 999 credits.

KIN 605, READING AND CONFERENCE, 1-16 Credits
Equivalent to: EXSS 605
This course is repeatable for 16 credits.

KIN 606, PROJECTS, 1-16 Credits
Equivalent to: EXSS 606
This course is repeatable for 16 credits.

KIN 607, SEMINAR, 1-16 Credits
Section 1: Graduate Research (1). Seminar emphasizes student oral presentations of current research topics in exercise and sport science. One credit required of all graduate students. Section 3: Current Developments (1). Discussion of contemporary issues in the exercise and sport science literature. Topics vary by term. Two credits required of all doctoral students. Graded P/N.
Equivalent to: EXSS 607
This course is repeatable for 16 credits.

KIN 610, PROFESSIONAL INTERNSHIP: PHYSICAL EDUCATION, 1-15 Credits
Field experience in which the term will integrate academic study with classroom teaching experience to learn specific competencies relating to functioning well in the context of the classroom and the school, and demonstrate this competency through the assessment of work by supervisors and by evidence collected and presented in work samples.
Equivalent to: EXSS 610
This course is repeatable for 25 credits.

KIN 647, CURRENT TOPICS AND RESEARCH IN ADAPTED PHYSICAL ACTIVITY, 3 Credits
Current trends and critical research issues in adapted physical activity; focus on international and national trends. Topic will be variable.
Equivalent to: EXSS 647

KIN 699, SPECIAL TOPICS, 1-16 Credits
Current issues, trends, and topics in KIN research. May be repeated for credit with different topics.
Equivalent to: EXSS 699
This course is repeatable for 25 credits.

Nutrition (NUTR)

NUTR 104, ORIENTATION TO THE NUTRITION MAJOR, 1 Credit
Discuss and explore the academic and professional requirements for successful entry into professional careers in dietetics, foodservice systems management, and human nutrition sciences majors. Identify professional resources, career opportunities, markets and trends in these OSU Nutrition major options. Graded P/N.
Equivalent to: NFM 104
Available via Ecampus

NUTR 199, SPECIAL TOPICS, 1-16 Credits
Equivalent to: NFM 199
This course is repeatable for 16 credits.

NUTR 201, RESEARCH AND SCHOLARSHIP, 1-16 Credits
This course is repeatable for 16 credits.
NUTR 216, *FOOD IN NON-WESTERN CULTURE, 3 Credits
Cultural determinants influencing food habits of humans. Interrelation of eating patterns and socio-cultural, ecological, psychological and economic factors in cross-cultural settings. Roles of men and women in food provision. Lec/rec. (Bacc Core Course)
Attributes: CPCD – Core, Pers, Cult Diversity
Equivalent to: NFM 216
Available via Ecampus

NUTR 225, GENERAL HUMAN NUTRITION, 3 Credits
The relationship of food, its nutrients and other components to the promotion of health and fitness with emphasis on the young adult. Current health concerns on a national and international level. This course is for non-majors; NES majors and those in the health sciences should take NUTR 240.
Equivalent to: NFM 225
Available via Ecampus

NUTR 235, SCIENCE OF FOODS, 5 Credits
Composition, functional properties, and structure of foods, including modified ingredients. Principles underlying preparation of food products of standard quality. Lec/lab.
Prerequisite: CH 123 with C- or better or CH 223 with C- or better or ((CH 263 with C- or better or CH 263H with C- or better or CH 273 with C- or better) and (CH 233 [C-] or CH 233H [C-]))
Equivalent to: NFM 235

NUTR 240, HUMAN NUTRITION, 3 Credits
An introductory nutrition course for exercise science, nutrition, dietetics, food science, and health science majors who have taken general chemistry. Concepts of nutrient metabolism and utilization, nutrient deficiencies and toxicities and their relationship to disease prevention and treatment.
Prerequisite: (CH 121 with C- or better or CH 224H with C- or better or (CH 221 with C- or better or CH 231 with C- or better or CH 231H with C- or better))
Equivalent to: NFM 240
Available via Ecampus

NUTR 241, APPLICATIONS IN HUMAN NUTRITION, 1 Credit
Application of nutrition theory from NUTR 240 using a dietary project and hands-on recreation activities. A key focus of the course will be on applying nutrition theory. Rec.
Prerequisite: NUTR 240 (may be taken concurrently) with C- or better
Equivalent to: NFM 241
Available via Ecampus

NUTR 299, SPECIAL TOPICS, 1-16 Credits
Equivalent to: NFM 299
This course is repeatable for 16 credits.

NUTR 306, PROJECTS, 1-16 Credits
This course is repeatable for 36 credits.

NUTR 307, SEMINAR, 1-16 Credits
Graded P/N.
This course is repeatable for 16 credits.

NUTR 311, FOODSERVICE PRODUCTION AND PURCHASING, 4 Credits
Food production, purchasing, facility and materials management in foodservice operations. Quantity production styles, safety and sanitation, service methods and equipment. Lec/lab/rec.
Prerequisite: NUTR 235 with C- or better
Equivalent to: NFM 311

NUTR 312, *ISSUES IN NUTRITION AND HEALTH, 3 Credits
Impact of nutrition as one component of complex environmental, behavioral, social, and genetic factors significant to health promotion. Apply scientific knowledge to current health issues of changing dietary patterns, technological development in food products and nutrition controversies. Recognize economic and public policy implications. Lec/rec. (Bacc Core Course)
Attributes: CSST – Core, Synthesis, Science/Technology/Society
Prerequisite: NUTR 225 with C- or better or NUTR 240 with C- or better
Equivalent to: NFM 312
Recommended: Completion of science requirement in Bacc Core
Available via Ecampus

NUTR 319, PROMOTING FOOD AND NUTRITION, 3 Credits
Strategies in promoting products, services or ideas; negotiating, advertising, public policy, consumer service, social marketing, market research, trends and strategies. Lec/lab.
Prerequisite: NUTR 240 with C- or better and NUTR 241 [C-]
Equivalent to: NUTR 219

NUTR 325, NUTRITION THROUGH THE LIFE CYCLE, 3 Credits
Nutritional needs and concerns in pregnancy and lactation, infancy, childhood, adolescence, adult and later years.
Prerequisite: (NUTR 240 with C- or better or NUTR 225 with C- or better) and NUTR 241 [C-]
Equivalent to: NFM 325
Recommended: Junior standing
Available via Ecampus

NUTR 341, NUTRITION FOR EXERCISE, 4 Credits
Review of the interrelationship between nutrition and exercise, including macronutrient, micronutrient and fluid needs for active individuals. CROSSLISTED as KIN 341/NUTR 341.
Prerequisite: KIN 324 with C- or better and NUTR 240 [C-]
Equivalent to: EXSS 341, KIN 341
Available via Ecampus

NUTR 399, SPECIAL TOPICS, 1-16 Credits
Equivalent to: NFM 399
This course is repeatable for 16 credits.

NUTR 401, RESEARCH, 1-16 Credits
Equivalent to: NFM 401
This course is repeatable for 16 credits.
NUTR 403, THESIS, 1-16 Credits
Graded P/N.
Equivalent to: NFM 403
This course is repeatable for 16 credits.

NUTR 405, READING AND CONFERENCE, 1-16 Credits
Graded P/N.
Equivalent to: NF 405
This course is repeatable for 16 credits.

NUTR 406, SPECIAL PROBLEMS; PROJECTS, 1-16 Credits
Equivalent to: NFM 406
This course is repeatable for 16 credits.

NUTR 407, SEMINAR, 1-16 Credits
Graded P/N.
Equivalent to: NFM 407
This course is repeatable for 16 credits.

NUTR 408, WORKSHOP, 1-16 Credits
Graded P/N.
Equivalent to: NFM 408
This course is repeatable for 16 credits.

NUTR 409, PRACTICUM, 1-16 Credits
Equivalent to: NFM 409
This course is repeatable for 16 credits.

NUTR 410, FIELD EXPERIENCE, 1-15 Credits
Supervised work experience with professional-level responsibilities in community agency or business firm. Supplementary conferences, readings, reports. Supervised by agency/firm and instructor. For advanced students. Applications made and approved term preceding enrollment. Graded P/N.
Equivalent to: NFM 410
This course is repeatable for 50 credits.
Available via Ecampus

NUTR 416, CULTURAL ASPECTS OF FOODS, 3 Credits
Regional, ethnic, and religious influences on food patterns; worldwide trends in food practices. Laboratory experience with foods from several cultures. Lec/lab. (Writing Intensive Course)
Attributes: CWIC – Core, Skills, WIC
Prerequisite: NUTR 235 with C- or better
Equivalent to: NFM 416

NUTR 417, HUMAN NUTRITION SCIENCE, 4 Credits
Application of biochemistry and physiology to nutrition of the individual.
Prerequisite: BB 350 with C- or better
Equivalent to: NFM 417
Recommended: One physiology course

NUTR 418, HUMAN NUTRITION SCIENCE, 4 Credits
Application of biochemistry and physiology to nutrition of the individual.
Prerequisite: NUTR 417 with C- or better
Equivalent to: NFM 418
Recommended: Biochemistry and physiology

NUTR 423, COMMUNITY NUTRITION, 4 Credits
Meeting nutritional needs in community settings; nutritional status of individuals and groups; programs of public and private agencies and industry; intervention techniques. Roles of community nutritionist.
Prerequisite: NUTR 325 with C- or better
Equivalent to: NFM 423

NUTR 430, MEDICAL NUTRITION THERAPY I, 4 Credits
Principles and practices related to implementation and documentation of the nutrition care process in dietetics. Diet-related conditions are addressed during the three-course sequence using lecture, case studies and assessment recitation sessions. Lec/lab/rec.
Prerequisite: (BB 350 with C- or better or (BB 450 with C- or better and BB 451 [C-]) and (BI 233 [C-] or BI 332 [C-]) and (BI 242 [C-] or BI 342 [C-]) and (BI 233 [C-] or BI 333 [C-]) and (BI 243 [C-] or BI 343 [C-]) and NUTR 417 (may be taken concurrently) [C-] and NUTR 439 [C-]

NUTR 431, MEDICAL NUTRITION THERAPY 2, 4 Credits
Principles and practices related to implementation and documentation of the nutrition care process in dietetics. Diet-related conditions are addressed during the three-course sequence using lecture, case studies and assessment recitation sessions.
Prerequisite: NUTR 430 with C- or better

NUTR 432, MEDICAL NUTRITION THERAPY 3, 3 Credits
Principles and practices related to implementation and documentation of the nutrition care process in dietetics. Diet-related conditions are addressed during the three-course sequence using lecture, case studies and assessment recitation sessions.
Prerequisite: NUTR 431 with C- or better

NUTR 439, COMMUNICATIONS IN DIETETICS, 3 Credits
Theory and practice in food and nutrition communications in dietetics. Experience in nutritional counseling and interviewing, employee training and nutritional education materials development, public speaking, and media presentation strategies. (Writing Intensive Course)
Attributes: CWIC – Core, Skills, WIC
Prerequisite: NUTR 325 with C- or better
Equivalent to: NFM 439
NUTR 446, MANAGING FOOD AND NUTRITION SERVICES, 4 Credits
Overview of organizational structure, functions of managers in food and nutrition service organizations: human and financial resources, regulatory influences, health care organizations, current issues in operations. Lec/rec.
Prerequisite: NUTR 311 with C- or better
Equivalent to: NFM 446

NUTR 447, MANAGEMENT OF FOOD SYSTEMS LABORATORY, 3 Credits
Application of theory in managing a university food service as part of a student team: planning, production, projecting resource needs, evaluation of outcomes and financial goals.
Equivalent to: NFM 447
Recommended: NUTR 446 or NUTR 546

NUTR 499, SPECIAL TOPICS IN DIETETICS, 1-16 Credits
Current issues, trends, and topics in nutrition and dietetics. May be repeated for credit when topic varies.
Equivalent to: NFM 499
This course is repeatable for 16 credits.

NUTR 501, RESEARCH, 1-16 Credits
Graded P/N.
Equivalent to: NFM 501
This course is repeatable for 16 credits.

NUTR 502, INDEPENDENT STUDY, 1-16 Credits
Graded P/N.
Equivalent to: NFM 502
This course is repeatable for 16 credits.

NUTR 503, THESIS, 1-16 Credits
Graded P/N.
Equivalent to: NFM 503
This course is repeatable for 999 credits.

NUTR 505, READING AND CONFERENCE, 1-16 Credits
Graded P/N.
Equivalent to: NFM 505
This course is repeatable for 16 credits.
Available via Ecampus

NUTR 506, SPECIAL PROBLEMS; PROJECTS, 1-16 Credits
Graded P/N.
Equivalent to: NFM 506
This course is repeatable for 16 credits.

NUTR 507, SEMINAR, 1-16 Credits
1 credit graded P/N.
Equivalent to: NFM 507
This course is repeatable for 16 credits.

NUTR 508, WORKSHOP, 1-16 Credits
Graded P/N.
Equivalent to: NFM 508
This course is repeatable for 16 credits.

NUTR 509, PRACTICUM, 1-16 Credits
Graded P/N.
Equivalent to: NFM 509
This course is repeatable for 16 credits.

NUTR 510, FIELD EXPERIENCE: INTERNSHIP, 1-16 Credits
Supervised work experience with professional-level responsibilities in community agency or business firm. Supplementary conferences, readings, reports. Supervised by agency/firm and instructor. Limited to students admitted to degree program. Application made and approved in the term preceding enrollment. No more than 6 credits may be applied to a master’s degree program.
Equivalent to: NFM 510
This course is repeatable for 6 credits.

NUTR 514, HEALTH BENEFITS OF FUNCT FOODS, NUTRACEUT, DIETARY SUPPLEMEN, 3 Credits
Functional foods, nutraceuticals and dietary supplements represent a rapidly expanding segment of domestic and international markets. This course will overview the principles and procedures necessary to evaluate and market these products. The chemistry and mechanisms of major nutraceutical ingredient categories and current scientific information supporting their biochemical and physiological efficacy will be addressed. Special dietary products, such as medical, weight control, sport, and herbal supplements, will be addressed. Regulatory aspects of labeling and structure-function claims will be covered. CROSSTIED as FST 514/NUTR 514.
Equivalent to: FST 514, NFM 514
Recommended: BB 350 and CH 332

NUTR 516, CULTURAL ASPECTS OF FOODS, 3 Credits
Regional, ethnic, and religious influences on food patterns; worldwide trends in food practices. Laboratory experience with foods from several cultures. Lec/lab.
Equivalent to: NFM 516
Recommended: NUTR 235

NUTR 517, HUMAN NUTRITION SCIENCE, 4 Credits
Application of biochemistry and physiology to nutrition of the individual.
Equivalent to: NFM 517
Recommended: BB 350 and one physiology course

NUTR 518, HUMAN NUTRITION SCIENCE, 4 Credits
Application of biochemistry and physiology to nutrition of the individual.
Prerequisite: NUTR 517 with C or better
Equivalent to: NFM 518
Recommended: biochemistry, physiology.
NUTR 523, COMMUNITY NUTRITION, 4 Credits
Meeting nutritional needs in community settings; nutritional status of individuals and groups; programs of public and private agencies and industry; intervention techniques. Roles of community nutritionist.
Equivalent to: NFM 523
Recommended: NUTR 325

NUTR 525, ORGANIC FOOD AND HEALTH: EVIDENCE AND CONSUMER PERCEPTIONS, 3 Credits
Overview of organic food including an understanding of the definition, certifications and labeling; basic production comparisons with conventional foods, evidence for comparisons between organic and conventionally produced foods; consumer attitudes and perceptions regarding organic foods.
Available via Ecampus

NUTR 530, MEDICAL NUTRITION THERAPY I, 4 Credits
Principles and practices related to implementation and documentation of the nutrition care process in dietetics. Diet-related conditions are addressed during the three-course sequence using lecture, case studies and assessment recitation sessions. Lec/lab/rec.
Recommended: (BB350 or (BB450 and BB 451)) and (BI 232 or BI 332) and (BI 242 or BI 342) and (BI 233 or BI 333) and (BI 243 or BI 343) and NUTR 439 and completion or concurrent enrollment in NUTR 417

NUTR 531, MEDICAL NUTRITION THERAPY 2, 4 Credits
Principles and practices related to implementation and documentation of the nutrition care process in dietetics. Diet-related conditions are addressed during the three-course sequence using lecture, case studies and assessment recitation sessions.
Recommended: NUTR 430

NUTR 532, MEDICAL NUTRITION THERAPY 3, 3 Credits
Principles and practices related to implementation and documentation of the nutrition care process in dietetics. Diet-related conditions addressed during the three-course sequence using lecture, case studies and assessment recitation sessions.
Recommended: NUTR 431

NUTR 535, NUTRITION AND EXERCISE: MACRONUTRIENTS AND ENERGY METABOLISM, 3 Credits
Current research examining the interrelationship of macronutrients and exercise and energy balance will be reviewed, including their roles in health, disease prevention and exercise performance.
Equivalent to: NFM 535
Recommended: NUTR 517 or KIN 533

NUTR 539, COMMUNICATIONS IN DIETETICS, 3 Credits
Theory and practice of food and nutrition communications in dietetics. Experience in nutritional counseling and interviewing, employee training and nutritional education materials development, public speaking, and media presentation strategies.
Equivalent to: NFM 539
Recommended: NUTR 325

NUTR 546, FOODSERVICE ORGANIZATIONS, 3 Credits
Overview of organizational structure, functions of managers in foodservice organizations: human resources, regulatory influences, health care organizations, current issues in operations. Lec/rec.
Equivalent to: NFM 546
Recommended: NUTR 311 and NUTR 445

NUTR 550, NUTRITIONAL STATUS, 4 Credits
Research studies with emphasis on estimation of nutrient intake and assessment of nutritional status, including biochemical, clinical, epidemiological and anthropometric measures. Interpretation of status indicators.
Equivalent to: NFM 550
Recommended: NUTR 418 or NUTR 518

NUTR 551, ADVANCED MEDICAL NUTRITION THERAPY, 4 Credits
This advanced course includes evidence-based practices and standards of care available to address complex scenarios for which medical nutrition therapy is an integral part of patient care. Students will build on prior assessment, nutritional diagnostic, implementation, monitoring, evaluation and documentation skills relevant to dietetics practice. Lecture, readings, case studies including professional documentation and expert guests will be used to illustrate medical nutrition therapy addressing topics such as as domestic malnutrition, nutrition support, pediatric nutrition, eating disorders, diabetes and geriatric nutrition.
Available via Ecampus

NUTR 552, FOOD AND NUTRITION PROGRAM MANAGEMENT AND EVALUATION, 4 Credits
Introduction to the evaluation of outcomes and impacts of food/nutrition-related systems, performance, interventions, programs and/or policies. Application of methods used to appraise problems or activities, as well to conceptualize, create, implement and administer evaluations in order to make decisions regarding their outcomes, impacts, efficiency and cost effectiveness. A case study approach across a range of food and nutrition-related public, government and private organizations will introduce the breadth of approaches in such evaluations.
Available via Ecampus
NUTR 553, DIETARY BEHAVIOR AND COUNSELING, 4 Credits
Strategies for navigating dietary behavior using collaborative, patient centered, goal-oriented approaches. Introduces the theoretical framework around dietary behavior and motivational interviewing with methods regarding the language of change and creating client/patient interest in change. Guided practice and focus on development of skills.

NUTR 599, SPECIAL TOPICS IN NUTRITION, 1-16 Credits
Current issues, trends, and topics in nutrition and health. May be repeated for credit when topic varies.
Equivalent to: NFM 599
This course is repeatable for 16 credits.

NUTR 601, RESEARCH, 1-16 Credits
Equivalent to: NFM 601
This course is repeatable for 16 credits.

NUTR 602, INDEPENDENT STUDY, 1-16 Credits
Graded P/N.
Equivalent to: NFM 602
This course is repeatable for 16 credits.

NUTR 603, THESIS, 1-16 Credits
Graded P/N.
Equivalent to: NFM 603
This course is repeatable for 999 credits.

NUTR 605, READING AND CONFERENCE, 1-16 Credits
Graded P/N.
Equivalent to: NFM 605
This course is repeatable for 16 credits.

NUTR 607, SEMINAR, 1-16 Credits
Graded P/N.
Equivalent to: NFM 607
This course is repeatable for 16 credits.

NUTR 609, PRACTICUM, 1-16 Credits
Equivalent to: NFM 609
This course is repeatable for 16 credits.

NUTR 610, INTERNSHIP, 1-16 Credits
Graded P/N.
Equivalent to: NFM 610
This course is repeatable for 16 credits.

NUTR 617, ADVANCED MACRONUTRIENT METABOLISM, 3 Credits
Focuses on human macronutrient metabolism. Macronutrient topics include water, carbohydrate, lipid, amino acid/protein, lipid and carbohydrate and energy metabolism. Emphasis is placed on the integration of metabolism at the molecular, biochemical and physiological level. Moreover, the class examines contemporary issues relevant to macronutrient metabolism and human disease. Offered even years in spring term.
Equivalent to: NFM 617
Recommended: NUTR 418 or NUTR 518

NUTR 618, ADVANCED MICRONUTRIENT METABOLISM, 3 Credits
Focus is on human micronutrient metabolism. Topics include micronutrients (vitamins and minerals), phytochemicals and mammalian metabolism. Emphasis will be placed on the integration of micronutrient/phytochemical metabolism at the molecular, biochemical and physiological level. Moreover, the class examines contemporary issues relevant to micronutrient/phytochemical metabolism and human disease.
Equivalent to: NFM 618
Recommended: NUTR 418 or NUTR 518 and basic knowledge of biochemistry and physiology

NUTR 699, SPECIAL TOPICS IN NUTRITION RESEARCH, 1-16 Credits
Current issues, trends, and topics in nutrition research. May be repeated for credit when topic varies.
Equivalent to: NFM 699
This course is repeatable for 16 credits.

Physical Activity Courses (PAC)
PAC 100, ADAPTED PHYSICAL ACTIVITY, 1 Credit
Individual workout for students with permanent or temporary physical disabilities and for students enrolled in another PAC who sustain an injury.
This course is repeatable for 11 credits.

PAC 102, AQUA AEROBICS, 1 Credit
Fitness class using a variety of movements in shallow and deep water, mostly in a vertical position. Do not need swimming skills.
Equivalent to: PAC 101
This course is repeatable for 11 credits.

PAC 103, DEEP WATER FITNESS, 1 Credit
Fitness class using a variety of movements in a deep water pool, mostly in a vertical position. Should be comfortable in deep water.
This course is repeatable for 11 credits.

PAC 104, ARCHERY, 1 Credit
Basic mechanics and introduction to archery. Exposure to varying archery techniques and equipment, including recurve and compound bow shooting.
This course is repeatable for 11 credits.
PAC 105, CPR-FIRST AID, 1 Credit
Introduces cardiac and first aid emergency response procedures. Emphasis placed on safe response, chain of survival, quality CPR (adults, children, infants and team responses), use of an AED, medical emergencies, injury emergencies and environmental emergencies. Students successfully completing the American Heart Association certification requirements will be issued a Heartsaver First Aid and BLS (Basic Life Support) for the Healthcare Provider certification at the end of the course. 
This course is repeatable for 11 credits.

PAC 106, BEAVER FIT, 1 Credit
A conditioning class for those of all fitness levels that focuses on mobility, functional movement, and high-intensity interval training as a means to improve cardiovascular fitness, muscular fitness, and flexibility. 
This course is repeatable for 11 credits.

PAC 108, STEP AEROBICS, 1 Credit
Low-impact, high intensity workout adjustable to all fitness levels utilizing adjustable height benches. Strengthening and flexibility exercises included. 
This course is repeatable for 11 credits.

PAC 110, INTRODUCTION TO WHITE WATER KAYAKING, 2 Credits
Students will learn fundamentals of white water kayaking in sheltered water based on the internationally recognized British Canoe (BC) teaching and skills certification system. Emphasis is on activity and basic skills. See class schedule for the location, website, and class schedule specific to the course. This course runs for six class sessions of 3 hours (Fridays), and one mandatory Saturday (5-hour) session. The entire class lasts for six weeks.
This course is repeatable for 11 credits.

PAC 111, INTRODUCTION TO CANOEING, 2 Credits
Students will learn fundamentals of canoeing in sheltered water based on the internationally recognized British Canoe (BC) teaching and skills certification system. Emphasis is on activity and basic skills. See class schedule for the location, website, and class schedule specific to the course. This course runs for six class sessions of 3 hours (Fridays), and one mandatory Saturday (5-hour) session. The entire class lasts for six weeks.
This course is repeatable for 11 credits.

PAC 112, LEARNING KAYAK ROLLING BASICS, 2 Credits
Students learn fundamentals of rolling a kayak in an indoor pool-based environment. Emphasis is on activity and basic skills. See class schedule for the location, website, and class schedule specific to the course. This course is repeatable for 10 credits.

PAC 113, BADMINTON I, 1 Credit
Singles and doubles skills, practice, rules, strategies and play. 
This course is repeatable for 11 credits.

PAC 114, BADMINTON II, 1 Credit
Intermediate skill development in badminton.
This course is repeatable for 11 credits.
Recommended: Fundamental skills, rules and strategy of singles and doubles play.

PAC 115, OUTDOOR LIVING SKILLS, 2 Credits
Educates and introduces students on how to travel safely in the backcountry through proper preparation, risk awareness, Leave No Trace ethics, terrain recognition, navigation, and camp craft. Classroom and field (lab) experience. Includes one mandatory weekend overnight outing. CROSSLISTED as PAC 115/TRAL 115.
Equivalent to: TRAL 115
This course is repeatable for 4 credits.

PAC 116, BASKETBALL I (MEN/WOMEN), 1 Credit
Fundamental basketball skills, drills, rules, strategies, and practice. Game play appropriate for the skill level. 
This course is repeatable for 11 credits.

PAC 117, BASKETBALL COMPETITIVE, 1 Credit
Team play, individual and team skills developed and refined, competitive round robin tournaments. 
This course is repeatable for 11 credits.
Recommended: Prior competitive experience.

PAC 118, LABORATORY FOR OUTDOOR LIVING SKILLS, 1 Credit
Practical field application of concepts learned in PAC 115/TRAL 115, Outdoor Living Skills. Field (lab) experience includes one mandatory weekend overnight. Introduces how to travel safely in the backcountry through proper preparation, risk awareness, Leave No Trace ethics, terrain recognition, navigation, and camp craft. CROSSLISTED as PAC 118/TRAL 118.
Corequisites: PAC 115
Equivalent to: TRAL 118
This course is repeatable for 2 credits.

PAC 120, MOUNTAIN BIKING, 1 Credit
Touring trails in Corvallis area; riding techniques, safety, maintenance, environmental concerns. Required equipment: mountain bike, tire repair kit, helmet. 
This course is repeatable for 11 credits.

PAC 121, BILLIARDS, 1 Credit
Skills, technique, strategy, game knowledge as introduction to billiards (pool), a ‘cue’ sport; rules and gaming for variations of pocket billiards; practice and class tournament play. 
This course is repeatable for 11 credits.

PAC 122, BODY SCULPTING, 1 Credit
Fitness workout set to music using lighter resistance training aids such as dumbbells, resistance tubing, bands, and aerobic steps. 
This course is repeatable for 11 credits.
PAC 123, BOWLING I, 1 Credit
Fundamentals of the game including etiquette, spot bowling, natural hook and straight ball delivery, scoring, handicap computation, spare pickup, and error correction. Additional fee; equipment supplied.
This course is repeatable for 11 credits.

PAC 124, BOWLING II, 1 Credit
Review and refinement of basic fundamentals of bowling. Emphasis on spot bowling, adjusting for lane conditions, choices in equipment, league play, and mental training.
This course is repeatable for 11 credits.
Recommended: Bowling I or the ability to bowl above a 110 average

PAC 126, CARDIO KICKBOXING I, 1 Credit
High intensity group workout set to motivational music and combining skills and techniques from boxing, kickboxing, and other martial arts.
This course is repeatable for 11 credits.

PAC 129, CARDIO COMBO, 1 Credit
Combination of aerobic training classes that use music such as Cardio Kickboxing, Body Sculpture, Sports Conditioning, and/or Step Aerobics. Actual curriculum may vary with instructors.
This course is repeatable for 11 credits.
Available via Ecampus

PAC 130, CONDITIONING, 1 Credit
Total body approach to fitness, cardiorespiratory conditioning, muscular strength and endurance; flexibility emphasized. May follow a specific training format, e.g., ROTC section follows Army conditioning format.
This course is repeatable for 11 credits.
Available via Ecampus

PAC 131, SNOWBOARD-SKI CONDITIONING, 1 Credit
Strength, muscular endurance, flexibility, balance, and cardiovascular exercises specific to downhill skiing and snowboarding; designed to help prepare students for participation in these sports.
This course is repeatable for 11 credits.

PAC 133, DANCE: TAP I, 1 Credit
Individual and group dance with specialized shoes; basic step technique and vocabulary; warm up exercises progressing into rhythmic combinations performed to music; culminates in full routine to music.
This course is repeatable for 11 credits.

PAC 136, DANCE: BALLET I, 1 Credit
Introduction to basic ballet technique and aesthetics, terminology, alignment, stretch and strength exercises. No previous dance experience needed. Additional fee for accompanist.
This course is repeatable for 11 credits.

PAC 137, DANCE: BALLET II, 1 Credit
Review and practice of beginning ballet technique, introduction of more advanced stretches, steps, and combinations. Additional fee for accompanist.
This course is repeatable for 11 credits.
Recommended: Ballet I or previous ballet experience.

PAC 138, DANCE: BALLET III, 1 Credit
Intermediate and advanced ballet technique, comprehensive exploration of the discipline. Additional fee for accompanist.
This course is repeatable for 11 credits.
Recommended: Ballet II, previous comparable experience

PAC 139, HIP HOP DANCE, 1 Credit
Aerobic/energetic experience consisting of a warm-up/conditioning and choreographic combinations.
This course is repeatable for 11 credits.

PAC 140, DANCE: JAZZ I, 1 Credit
Introduction to jazz dance, technique, isolations, and combinations. Different jazz styles are explored. No previous dance experience is necessary.
This course is repeatable for 11 credits.

PAC 141, DANCE: JAZZ II, 1 Credit
Intermediate jazz technique, isolations and combinations.
This course is repeatable for 11 credits.
Recommended: Jazz I or comparable experience.

PAC 145, DANCE: MODERN I, 1 Credit
Introduction to modern dance movement fundamentals. Technique, stretch, strength, and alignment are included, as well as an appreciation for movement expression. No previous dance experience needed. Additional fee for accompanist.
Equivalent to: PAC 145H
This course is repeatable for 11 credits.

PAC 145H, DANCE: MODERN I, 1 Credit
Introduction to modern dance movement fundamentals. Technique, stretch, strength, and alignment are included, as well as an appreciation for movement expression. No previous dance experience needed. Additional fee for accompanist.
Attributes: HNRS – Honors Course Designator
Equivalent to: PAC 145
This course is repeatable for 11 credits.

PAC 146, DANCE: MODERN II, 1 Credit
An intermediate level of modern dance technique and movement expression. Additional fee for accompanist.
This course is repeatable for 11 credits.
Recommended: Modern Dance I or comparable experience.

PAC 148, DANCE: CUBAN SALSA I (MEN/ WOMEN), 1 Credit
Foundations of Cuban Salsa (Casino) as well as Rueda de Casino with focus on musical development and fundamentals of leading and following in partner dance.
This course is repeatable for 11 credits.

PAC 149, DANCE: CUBAN SALSA II, 1 Credit
Higher concepts of Cuban Salsa (Casino) as well as Rueda de Casino, with focus on musical development and fundamentals of leading and following in partner dance.
This course is repeatable for 11 credits.
Recommended: Cuban Salsa I or comparable experience.
PAC 151, COUNTRY LINE DANCE, 1 Credit
Non-partner dance routines in country western style; musical interpretation, footwork, and sequencing of 20 different routines. This course is repeatable for 11 credits.

PAC 152, DANCE: SALSA I, 1 Credit
Steps and rhythmic accent of Salsa and Merengue style; fundamentals of leading and following; basic moves and combinations. No prior experience needed. This course is repeatable for 11 credits.

PAC 153, DANCE: SALSA II, 1 Credit
Intermediate moves, rhythmic accents and step combinations of Salsa; development of leading and following. Prerequisite: PAC 152 with C- or better This course is repeatable for 11 credits.

PAC 154, DANCE: COUNTRY WESTERN I (MEN/WOMEN), 1 Credit
Focus on traditional Country Western Swing patterns. Emphasizes fundamentals of leading and following. Also including introduction to waltz, two-step, cowboy cha-cha and 10-step polka. Equivalent to: PAC 144 This course is repeatable for 11 credits.

PAC 155, DANCE: COUNTRY WESTERN II (MEN/WOMEN), 1 Credit
Build on CW I with advanced waltz, two-step, and cha-cha patterns; introduces schottishe and East Coast swing. This course is repeatable for 11 credits. Recommended: Country Western I or comparable experience

PAC 156, DANCE: COUNTRY WESTERN III (MEN/WOMEN), 1 Credit
Advanced two-step patterns and styling with a focus on musical interpretation; development of leading and following. Prerequisite: PAC 155 with C- or better This course is repeatable for 11 credits.

PAC 158, DANCE: BEGINNING SWING (MEN/WOMEN), 1 Credit
Introduction to single time, double time, and triple time (jitterbug) swing; variations for each style, covering most swing music rhythms. Emphasizes fundamentals of leading and following. Men/women. This course is repeatable for 11 credits.

PAC 159, DANCE: BALLROOM I (MEN/WOMEN), 1 Credit
Posture and alignment, fundamentals of leading and following, basic steps and variations for waltz, foxtrot, swing, tango, and cha-cha. Equivalent to: PAC 134 This course is repeatable for 11 credits.

PAC 160, DANCE: BALLROOM II (MEN/WOMEN), 1 Credit
Additional steps and patterns of popular ballroom dances. Prerequisite: PAC 159 with C- or better Equivalent to: PAC 135 This course is repeatable for 11 credits.

PAC 161, DANCE: BALLROOM III (MEN/WOMEN), 1 Credit
Styling; additional dances: rhumba, silver fox trot, and Viennese waltz; advanced dance figures for tango and cha-cha. Prerequisite: PAC 160 with C- or better This course is repeatable for 11 credits.

PAC 163, DANCE: LATIN I, 1 Credit
Latin dances including cha-cha, mambo, salsa, rhumba, merengue, bolero, salsa, and paso doble. Emphasis on proper styling and technical execution of each dance; effective leading and following techniques. Prerequisite: PAC 159 with C- or better This course is repeatable for 11 credits.

PAC 164, DANCE: BALLROOM 2 STEP, HUSTLE (MEN/WOMEN), 1 Credit
Smooth, romantic social dance that is neither ballroom, Latin, nor swing but a rhythm dance identified as club-style, danced to contemporary ballad-like music. Hustle is fast-paced, swing-related dance to disco beat. Class encompasses intermediate step patterns, technique and styling, stationary, traveling patterns. Prerequisite: PAC 160 with C- or better This course is repeatable for 11 credits.

PAC 165, DANCE: WEST COAST SWING (MEN/WOMEN), 1 Credit
Smooth, romantic social dance that is neither ballroom, Latin, nor swing but a rhythm dance identified as club-style, danced to contemporary ballad-like music. Hustle is fast-paced, swing-related dance to disco beat. Class encompasses intermediate step patterns, technique and styling, stationary, traveling patterns. Prerequisite: PAC 159 with C- or better Equivalent to: PAC 162 This course is repeatable for 11 credits.

PAC 166, BALLROOM 2 STEP, HUSTLE (MEN/WOMEN), 1 Credit
Smooth, romantic social dance that is neither ballroom, Latin, nor swing but a rhythm dance identified as club-style, danced to contemporary ballad-like music. Hustle is fast-paced, swing-related dance to disco beat. Class encompasses intermediate step patterns, technique and styling, stationary, traveling patterns. Prerequisite: PAC 160 with C- or better This course is repeatable for 11 credits.

PAC 167, DANCE: LINDY HOP, 1 Credit
Ballroom dance style based on original eight-count swing dance evolved in Harlem ballrooms during the late 1920s; styling emphasized. Prerequisite: PAC 158 with C- or better or PAC 159 with C- or better This course is repeatable for 11 credits.

PAC 168, DANCE: LINDY HOP II (MEN/WOMEN), 1 Credit
Intermediate patterns, syncopations, play techniques, and styling with a focus on musical interpretation in the Lindy Hop style; development of leading and following. Prerequisite: PAC 167 with C- or better This course is repeatable for 11 credits.
PAC 169, COOL SHOES, BALLROOM PERFORMANCE, 2 Credits
Learn and perform ballroom dance routines on an intermediate level. This course is a full year commitment ending with a dance concert in the spring.
This course is repeatable for 12 credits.

PAC 170, DANCE: WEST COAST SWING II (MEN/WOMEN), 1 Credit
Intermediate patterns, syncopations, play techniques, and styling with a focus on musical interpretation; development of leading and following.
Prerequisite: PAC 165 with C- or better
This course is repeatable for 11 credits.

PAC 173, INTERMEDIATE ROCK CLIMBING, 2 Credits
Introduces variety of basic skills, gear and systems that will allow them to safely participate in a single pitch rock climbing environment based on internationally recognized American Mountain Guides Association (AMGA) teaching and skills certification systems. Presents students with various technical skills that will serve as a foundation for future land-based outdoor disciplines. Students will be introduced to gear, such as software (ropes, webbing, harnesses) and hardware (carabiners, friction devices); skills, such as knots, belaying, rappelling, lead climbing; and systems such as anchors and basic rescue techniques. CROSSTLISTED as PAC 173/TRAL 173.
Equivalent to: TRAL 173
This course is repeatable for 10 credits.

PAC 174, FLAG FOOTBALL, 1 Credit
Skill instruction and practice; drills; strategies, game play of America football; emphasis on teamwork and sportsmanship in a competitive but non-threatening or stressful environment.
This course is repeatable for 11 credits.

PAC 178, FLY FISHING I, 1 Credit
Casting and fishing techniques, lure making, equipment selection, terminology, and regulation for fishing in Oregon’s marine environment. This course is repeatable for 11 credits.

PAC 179, FLY FISHING II, 1 Credit
Advanced fly casting and fly fishing techniques for trout, fly-tying, equipment selection, basic aquatic organism identification, terminology, and regulations for fishing in Oregon’s freshwater environment. This course is repeatable for 11 credits.

PAC 180, STEELHEAD FISHING, 1 Credit
Casting and fishing techniques, lure making, equipment selection, terminology, and regulations for fishing in Oregon’s marine environment for steelhead. This course is repeatable for 11 credits.

PAC 182, DISC GOLF I, 1 Credit
Techniques for throwing discs; equipment, knowledge, etiquette, and rules associated with playing a disc golf course; experience playing practice and official disc golf courses. This course is repeatable for 11 credits.

PAC 184, GOLF I, 1 Credit
Basic fundamental principles in all phases of golf; rules, terminology, etiquette, safety and scoring. Equipment provided.
This course is repeatable for 11 credits.

PAC 185, GOLF II, 1 Credit
Individual practice and course play; skill refinement as continuation of Golf I. Equipment available. Course play expected, additional fee.
This course is repeatable for 11 credits.
Recommended: Golf I

PAC 186, GOLF III, 1 Credit
Advanced skills, knowledge involved in competitive play. Course play expected, additional fee.
This course is repeatable for 11 credits.
Recommended: Handicap below 15 or Golf II; competitive play.

PAC 188, GYMNASTICS, 1 Credit
Fundamental techniques on vault, bars, beam, and floor.
This course is repeatable for 11 credits.

PAC 189, GYMNASTICS II, 1 Credit
Build upon previous gymnastics experiences or classes; floor exercise, uneven parallel bars, vault, mini-trampoline and beam apparatus are available.
This course is repeatable for 11 credits.
Recommended: Gymnastics I or competitive experience.

PAC 190, KARATE, 1 Credit
Instruction in traditional Japanese karate basic striking and blocking techniques, kata (forms), philosophy, conditioning, and etiquette. Self-defense applications are also emphasized.
Equivalent to: PAC 183
This course is repeatable for 11 credits.

PAC 191, BRAZILIAN JIU-JITSU, 1 Credit
Basic level grappling self-defense techniques and applying them in sparring sessions along with understanding the core principles which make this martial arts system effective. An introduction to the history of Brazilian Jiu-jitsu along with proper gym etiquette, vocabulary, and culture.
This course is repeatable for 11 credits.

PAC 192, JUDO I, 1 Credit
Skill instruction in landing, throwing and grappling for this style of martial arts; etiquette for practice and competition; basic knowledge of vocabulary, rules and scoring.
This course is repeatable for 11 credits.

PAC 193, JUDO II, 1 Credit
Intermediate skill instruction in landing, throwing, pins, chokes in Kodokan Judo style; principles of Seiryoku-Zenyou and Jita-Kyouei designed to help individuals become better members of society through training body and mind; instruction for competition knowledge and skills. Judo etiquette for practice and competition expected.
This course is repeatable for 11 credits.
Recommended: Judo I or comparable experience
PAC 194, PILATES, 1 Credit
Non-impact, invigorating approach to physical conditioning and mind/body awareness; helps develop core body strength, improve posture and balance, and increase muscle endurance, tone, flexibility.
This course is repeatable for 11 credits.
Available via Ecampus

PAC 195, PILATES II, 1 Credit
Progression of Joseph Pilates mat exercises; emphasis on intermediate and advanced levels; application of Pilates’ principles to new exercises; use of props; application of principles to daily living.
This course is repeatable for 11 credits.
Recommended: PAC 194, Pilates.

PAC 197, PICKLEBALL, 1 Credit
Fast-paced, self-officiated net game with similarities to tennis, badminton, table tennis, and racquetball. Course covers rules, strategies, technique, preparation for play, and includes extensive active practice and play; played with two, three, or four people.
This course is repeatable for 11 credits.

PAC 199, SPECIAL TOPICS, 1-3 Credits
Experimental or new classes.
This course is repeatable for 11 credits.

PAC 201, RELAXATION, 1 Credit
Introduction to techniques that promote relaxation of the nervous system. These may include, but are not limited to: meditation, imagery, yoga postures, and self-massage. Students will be encouraged to reflect on how life choices influence their nervous system.
This course is repeatable for 11 credits.
Available via Ecampus

PAC 202, MEDITATION, 1 Credit
Examine the application of building simple awareness, how to manage thoughts in productive and compassionate ways, and how to transfer these skills into healthy relationships. Explore strategies for managing mental and physical difficulties including anxiety, pain, and overall stress through experiential learning and personal sharing of experiences.
This course is repeatable for 11 credits.

PAC 203, OBSERVATION & ASSISTANT INSTRUCTIONAL PRACTICE IN PHYS ACT, 1 Credit
Observe and begin physical activity instruction within dance, yoga, sports, fitness, aquatics, martial arts, or cross-disciplinary physical activities. Used in several of the leadership training program curriculums.
This course is repeatable for 11 credits.

PAC 204, LEAD INSTRUCTIONAL PRACTICE IN PHYSICAL ACTIVITY, 1 Credit
Lead physical activity curriculum within dance, yoga, fitness, aquatics, sports, martial arts, or cross-disciplinary physical activities. Gain experience implementing already designed lesson plans, assessment, and leading peers through basic exercise, while supervised by university and program personnel.
Prerequisite: PAC 203 with C- or better
This course is repeatable for 11 credits.

PAC 205, ROWING, CREW I (MEN/WOMEN), 1 Credit
Introduction to the sport of rowing; designed for the novice (beginner). Includes basic technique and terminology, related water safety, and development of strength, endurance, and flexibility.
This course is repeatable for 11 credits.
Recommended: Swim Test (1).

PAC 208, WORKSHOP, 1-16 Credits
This course is repeatable for 16 credits.

PAC 212, RUNNING, JOGGING, 1 Credit
Cardiorespiratory fitness with scenic running routes; training, nutrition, and physiology. Beginning and intermediate level.
This course is repeatable for 11 credits.
Available via Ecampus

PAC 213, RUNNING: 10K TRAINING, 1 Credit
Intermediate to advanced conditioning and training program for road racing.
This course is repeatable for 11 credits.
Recommended: Prior training in running.

PAC 214, HALF MARATHON TRAINING, 2 Credits
Progressive training combining walking, running, core strengthening, interval techniques in preparation for a 13.1 mile (1/2 marathon) event. Open to all levels; may choose to walk, walk/run, or run.
This course is repeatable for 11 credits.

PAC 215, RUGBY, TOUCH, 1 Credit
Basic skills of open field rugby; emphasis on ball handling and attacking strategy; rules and history; game play.
This course is repeatable for 11 credits.

PAC 217, SELF DEFENSE, 1 Credit
Nonviolent self-defense. Develop self-confidence and skills for assault situations. Conditioning and practical skills. Men and women, all levels.
This course is repeatable for 11 credits.

PAC 224, TELEMARK SKIING, 1 Credit
Winter sport that is a cross between cross country and downhill skiing. Requires telemark equipment where the heel is unattached. Class accommodates all levels and practices on the downhill slopes. Additional fee covers bus transportation, lessons, and lift ticket. Rental of equipment is not included.
This course is repeatable for 11 credits.

PAC 225, DOWNHILL SKIING, 1 Credit
Travel to area facilities, 1-1/2 hour lesson followed by open practice, students grouped according to skill level: beginner, intermediate, advanced, racer. Special fee covers bus transportation, lessons, and lifts. Additional fee for rentals.
This course is repeatable for 11 credits.
PAC 227, SNOWBOARDING, 1 Credit
Travel to area facilities, 1 1/2 hour lesson followed by open practice, students grouped according to skill level: beginner, intermediate, advanced. Special fee covers bus transportation, lessons, and lifts. Additional fee for rentals.  
This course is repeatable for 11 credits.

PAC 229, SOCCER I, 1 Credit
Basic skills of controlling the ball; conditioning; lead-up games; team play.  
Equivalent to: PAC 211
This course is repeatable for 11 credits.

PAC 230, SOCCER II, 1 Credit
Review of basic skills of offense and defense in controlled game play; concepts of team position and play, pressure and attack.  
This course is repeatable for 11 credits.  
Recommended: Previous soccer experience.

PAC 231, SOCCER III, 1 Credit
High level soccer skills; team play and transition concepts; set plays and alignments for both offense and defense.  
This course is repeatable for 11 credits.  
Recommended: Soccer II or competitive playing experience.

PAC 233, SOCCER: INDOOR, 1 Credit
Skill instruction and development; strategies and rules for indoor play; game play in indoor gymnasium.  
This course is repeatable for 11 credits.

PAC 236, SOFTBALL, WHIFFLEBALL, 1 Credit
Skills, rules, strategies, practice, and game play of the popular outdoor slow pitch game. Modified softball with whiffleball when play is indoors.  
This course is repeatable for 11 credits.

PAC 242, SCUBA: OPEN WATER, 2 Credits
Lecture includes physiology, water environment, equipment, and techniques for fundamental SCUBA diving. Laboratory includes practice in techniques, skills, and equipment usage; sessions held in pool and open water. Successful completion leads to PADI certification. Additional fee covers most equipment, texts, certification, and open water dive trip.  
This course is repeatable for 11 credits.  
Recommended: 200-yard swim, 10-minute survival skills and good health.

PAC 244, SCUBA: RESCUE DIVER, 1 Credit
Techniques, skills, knowledge, and practice in self-rescue and rescue of others in underwater emergencies; may lead to PADI certification; lecture and pool laboratory; open water dive required. Additional fee.  
This course is repeatable for 11 credits.  
Recommended: PAC 243 or PADI Advanced Open Water Certification

PAC 245, SCUBA SPECIAL TOPICS, 1 Credit
Specialized courses requiring previous certification in SCUBA. Check the current schedule of classes for more information and prerequisites. Possible classes: altitude diver, night diver, search and recovery, deep diver, underwater navigation, equipment specialist. Additional fee.  
This course is repeatable for 11 credits.  
Recommended: PAC 242 or PADI Open Water Certification

PAC 246, DIVEMASTER TRAINING, 2 Credits
Entry level PADI certification course for preparation to instruct SCUBA; lecture, lab, open water experience; must take two consecutive terms.  
This course is repeatable for 11 credits.  
Recommended: PAC 244. PADI Advanced, Advanced Plus, Rescue Diver certifications and 20 logged dives

PAC 247, SURFING, 1 Credit
Knowledge and fundamental skills of this aquatic sport including history, terminology, safety precautions, the ocean environment, and equipment. Additional fee.  
This course is repeatable for 11 credits.

PAC 248, SWIM: NON-SWIMMER, 1 Credit
Skills for self-rescue; fundamental skills in swimming and safety. Designed for people with a fear of water. Recommended S/U grading.  
Equivalent to: PAC 219
This course is repeatable for 11 credits.

PAC 249, LIFEGUARD TRAINING, 1 Credit
Trains participants in the skills required to become a lifeguard. Emphasis on professional behavior, water rescues, safe response, quality CPR (adults, children, infants, and team responses), use of an AED and first aid. Students successfully completing the American Red Cross certification requirements will be issued a lifeguarding certification at the end of the course.  
This course is repeatable for 11 credits.  
Recommended: Basic swimming skills

PAC 250, SWIM I, 1 Credit
Swimming concepts, survival and breathing techniques, front crawl and elementary backstroke as minimum instruction.  
This course is repeatable for 11 credits.  
Recommended: Basic swimming skills: float, tread water, bobbing

PAC 252, SWIM II, 1 Credit
Fitness swimming, swimming strokes and skills.  
Equivalent to: PAC 221
This course is repeatable for 11 credits.  
Recommended: Swim I or the ability to front crawl continuously for 75yards
PAC 253, SWIM TRAINING WORKOUT, 1 Credit
Competitive skills and strokes; emphasis on training.
This course is repeatable for 11 credits.
Recommended: Ability to do interval training.

PAC 254, COMPETITIVE SWIMMING, 1 Credit
Prepares students for competitive swimming and emphasizes lifetime aquatic fitness; interval swim workouts designed for speed and endurance; instruction on legal techniques of strokes and turns; culminates in intra-class swim meet; 2,000-3,000 yards/day.
This course is repeatable for 11 credits.
Recommended: Swim II or previous interval training experience up to 400 yard distances

PAC 256, TAIJI, TAI CHI I, 1 Credit
Introduction to ancient Chinese 'internal martial art' based upon concepts of Yin and Yang; detailed slow and relaxed form movements provide benefits to body, mind, and spirit.
This course is repeatable for 11 credits.

PAC 257, TAIJI, TAI CHI II, 1 Credit
Continuation of study of the Yang-style Taiji form; more in-depth exploration of underlying principles and push-hands exercises.
This course is repeatable for 11 credits.

PAC 260, TENNIS I, 1 Credit
Introduction to fundamental strokes, singles and doubles play, scoring, and basic concepts in tennis.
Equivalent to: PAC 234
This course is repeatable for 11 credits.

PAC 261, TENNIS II, 1 Credit
Review and refinement of fundamental strokes; volley, lob, return of serve; introduction to singles and doubles strategy.
Equivalent to: PAC 235
This course is repeatable for 11 credits.
Recommended: Tennis I or competitive tennis experience

PAC 262, TENNIS III, 1 Credit
Focus on ground stroke, serve consistency; approach shots and overheads; tactics for net and baseline play.
This course is repeatable for 11 credits.
Recommended: Tennis II

PAC 265, TUMBLING I, 1 Credit
Technical instruction, progressions, and practice in basic, intermediate, and advanced tumbling skills; emphasis on safety and fitness concepts; floor and mini-trampoline skills; no apparatus instruction.
This course is repeatable for 11 credits.

PAC 266, TUMBLING II, 1 Credit
Technical instruction, progressions, safety, and practice building upon skills taught in PAC 265, Tumbling I.
This course is repeatable for 11 credits.
Recommended: Tumbling I or prior experience.

PAC 268, TRIATHLON TRAINING, 2 Credits
Training in swimming, running, and bicycling to prepare for triathlon participation. Strategies, transitioning technique, and weight training information; training plan formation; event planning; culminates in class or community event.
This course is repeatable for 11 credits.
Recommended: Experience in at least one of the three activities.

PAC 271, ULTIMATE FRISBEE, 1 Credit
Fundamentals for the beginning and intermediate player; individual skill development, rules, game play, and strategy.
This course is repeatable for 11 credits.

PAC 273, VOLLEYBALL I, 1 Credit
Fundamental volleyball skills, drills, rules, strategies, and practice. Game play appropriate for skill level.
This course is repeatable for 11 credits.

PAC 274, VOLLEYBALL II, 1 Credit
Fundamental skills and knowledge refined; intermediate skills developed, competitive play.
This course is repeatable for 11 credits.
Recommended: Volleyball I and good fundamental skills.

PAC 275, VOLLEYBALL III, 1 Credit
Skill refinement and development; intense, highly competitive drills and game situations, doubles through sixes play.
This course is repeatable for 11 credits.
Recommended: Volleyball II or varsity-level experience

PAC 278, FITNESS WALKING, 1 Credit
Establishment of personal fitness programs through walking with emphasis on technique and aerobic components.
This course is repeatable for 11 credits.

PAC 282, WATER POLO, 1 Credit
Team game, played in deep water; instruction in skills, drills, strategies, techniques; game play; knowledge of rules and terminology.
This course is repeatable for 11 credits.
Recommended: Swim I skills.

PAC 286, WEIGHT TRAINING: CIRCUITS, 1 Credit
Fast-paced fitness class using stations of resistance training exercises. Designed to improve cardiovascular fitness and muscular endurance more than strength.
This course is repeatable for 11 credits.

PAC 287, WEIGHT TRAINING I, 1 Credit
Exercise techniques in both free and fixed resistance training equipment; safety procedures, terminology, and principles of exercise.
This course is repeatable for 11 credits.

PAC 288, WEIGHT TRAINING II, 1 Credit
Intermediate level of weight training in free and fixed weights.
Prerequisite: PAC 287 with C+ or better
This course is repeatable for 11 credits.
PAC 292, WRESTLING, 1 Credit
Collegiate wrestling fall and winter terms; freestyle and Greco wrestling spring term. All levels.
This course is repeatable for 11 credits.

PAC 293, INTERDISCIPLINARY YOGA, 1 Credit
Basic yoga poses (asanas) using specific techniques and sequences to promote flexibility, strength, relaxation, and a sense of well-being will be used. Integrative concepts between yoga and our daily life will be examined as well as yoga in relationship to other forms of physical movement.
Equivalent to: PAC 293H
This course is repeatable for 11 credits.

PAC 293H, INTERDISCIPLINARY YOGA, 1 Credit
Basic yoga poses (asanas) using specific techniques and sequences to promote flexibility, strength, relaxation, and a sense of well-being will be used. Integrative concepts between yoga and our daily life will be examined as well as yoga in relationship to other forms of physical movement.
Attributes: HNRS – Honors Course Designator
Equivalent to: PAC 293
This course is repeatable for 11 credits.

PAC 294, YOGA I, 1 Credit
Principles and practice of basic yoga postures, techniques of posture alignment, yogi breathing styles and their impact on the body and mind. Students will be exposed to a variety of forms of yoga, as well as basic yoga philosophy.
This course is repeatable for 11 credits.
Available via Ecampus

PAC 295, YOGA II, 1 Credit
Building off Yoga I, this is an intermediate level course meant to develop a deeper understanding of yoga practice.
Equivalent to: PAC 256
This course is repeatable for 11 credits.
Recommended: Yoga I or previous yoga experience.
Available via Ecampus

PAC 296, VINYASA YOGA, 1 Credit
Dynamic flow that connects movement and breath encouraging meditation in motion. May include sustained yoga postures.
Equivalent to: PAC 257
This course is repeatable for 11 credits.
Recommended: Yoga I or previous yoga experience

PAC 297, YOGATHON, 1 Credit
Expands on knowledge and skills learned in Yoga I or Fitness Yoga through three to five class sessions, each 3-6 hours; longer sessions provide students with an intensive mental and physical experience centering on the concepts of yoga; includes introductory relaxation and meditation skills.
This course is repeatable for 11 credits.
Recommended: PAC 294 and PAC 295 and PAC 296 and (Yoga I or Fitness Yoga)

PAC 298, RESTORATIVE YOGA, 1 Credit
An emphasis on floor postures, supported postures, and longer holds that cultivate a relationship with ease. Techniques will be used to help students facilitate greater personal awareness. Students will use self-reflection practices for personal well-being.
This course is repeatable for 11 credits.

PAC 299, SPECIAL TOPICS, 1-3 Credits
Advanced information, skills, practice, and application; experimental and new classes. May have additional fee.
This course is repeatable for 11 credits.
Recommended: Intermediate to advanced skills in an activity area

PAC 300, ALI: HIKING LOCAL TRAILS, 1 Credit
Covers the fundamentals of hiking as a recreational activity and an outdoor travel skill. Content will cover local trails, place history, hiking techniques, clothing and equipment selection, elemental first aid and safety concerns, leave-no-trace principles, and map basics. PAC courses may not be used to fulfill upper-division requirements.
This course is repeatable for 11 credits.

PAC 301, ALI: CHALLENGE COURSE EXPERIENCE, 1 Credit
Emphasis on gaining practical experience and understanding of various components that occur in challenge course activities/programs; group dynamic mental and physical challenges; cooperative games and initiatives that promote communication, problem solving skills and leadership; Low and High challenge course activities that promote self-confidence and agility. PAC courses may not be used to fulfill upper-division requirements.
This course is repeatable for 11 credits.

PAC 302, ALI: CHALLENGE COURSE PRACTICES AND FACILITATION, 1 Credit
Covers the set up and facilitation of various challenge course low and high course elements as they pertain to ALI’s Challenge Course programming. Students will learn facilitation skills, risk management concepts, operational procedures, and technical rescue skills. A passing grade in this course will result in a certificate of completion from the OSU ALI Challenge Course. PAC courses may not be used to fulfill upper-division requirements.
Prerequisite: PAC 301 with C- or better
This course is repeatable for 11 credits.
Recommended: Climbing wall instructor, efficient climbers toolbox, self-rescue.

PAC 303, ALI: CAMP CRAFT, 1 Credit
Provides basic front-country camping skills such as packing, trip planning, how to dress for different climates/weather, storm-proofing, knife and axe techniques and safety, stove and kitchen operations, and fire building. PAC courses may not be used to fulfill upper-division requirements.
This course is repeatable for 11 credits.
PAC 304, ALI: BACKPACKING, 1 Credit
Hiking and camping while carrying all gear; tent set-up, camp site selection, operation of single-burner stoves, loading a backpack, water infiltration, navigation, proper hiking technique, energy conservation; leave-no-trace principles in every aspect of the trip and class; includes classroom instruction and required overnight trip. PAC courses may not be used to fulfill upper-division requirements. 
This course is repeatable for 11 credits.

PAC 307, ALI: RAFTING, 1 Credit
An introduction to white water rafting. Students will learn the fundamentals of safe rafting, trip planning and become familiar with the gear associated with rafting. PAC courses may not be used to fulfill upper-division requirements. 
This course is repeatable for 11 credits.

PAC 308, ALI: CANOEING, 1 Credit
Designed as an introduction to canoeing. Students learn the fundamentals of safe canoeing, trip planning and become familiar with the gear associated with rafting. PAC courses may not be used to fulfill upper-division requirements. 
This course is repeatable for 11 credits.

PAC 309, ALI: KAYAKING I, 1 Credit
Focuses on developing technical kayaking skills in flat water and moving water up to Class I. PAC courses may not be used to fulfill upper-division requirements. 
This course is repeatable for 11 credits.

PAC 311, ALI: STAND UP PADDLEBOARD, 1 Credit
Covers the curriculum for level 1 and 2 American Canoe Association stand up paddle board skill courses. Skills include equipment, environmental factors, techniques, preparation and planning, emergency management, and environmental ethics. PAC courses may not be used to fulfill upper-division requirements. 
This course is repeatable for 11 credits.

PAC 313, ALI: CANYONEERING, 1 Credit
Students will learn the fundamentals of canyoneering, including efficient hiking techniques, safe anchoring, belaying and rappelling techniques, and environmental mitigation skills. PAC courses may not be used to fulfill upper-division requirements. 
This course is repeatable for 11 credits.

PAC 314, ALI: BOULDERING, 1 Credit
Introduction to the sport of bouldering, a subset of rock climbing using an indoor climbing facility; emphasis on safety, spotting, climbing movement, training techniques and improvement; provides activities that promote muscular strength and endurance, flexibility, and cardiovascular endurance. PAC courses may not be used to fulfill upper-division requirements. 
This course is repeatable for 11 credits.

PAC 315, ALI: ROCK CLIMBING I, 1 Credit
Physical conditioning for, and instruction in, the skills and techniques of rock climbing; environmental impact issues; held at on-campus indoor climbing center. PAC courses may not be used to fulfill upper-division requirements. 
This course is repeatable for 11 credits.

PAC 316, ALI: ROCK CLIMBING II, 1 Credit
Focuses on developing technical climbing skills related to lead climbing and anchor construction. Includes a one-day outdoor experience. PAC courses may not be used to fulfill upper-division requirements. 
Prerequisite: PAC 315 with C- or better 
This course is repeatable for 11 credits.

PAC 317, ALI: ROCK CLIMBING III, 1 Credit
Focuses on developing technical climbing skills in an outdoor setting. Includes a weekend long outdoor experience and cover skills ranging from building anchors using natural protection, to advanced outdoor movement skills. PAC courses may not be used to fulfill upper-division requirements. 
Prerequisite: PAC 315 with C- or better and PAC 316 [C-] 
This course is repeatable for 11 credits. 
Recommended: Intermediate to advanced skills in an activity area

PAC 319, ALI: TECHNICAL RAPPELLING, 1 Credit
Students will learn, practice and hone their skills in the art of technical rappelling. Introduces many different styles, techniques and equipment used for rappelling in a variety of situations. Throughout the course, students will be provided with simple to advanced challenges to overcome. PAC courses may not be used to fulfill upper-division requirements. 
This course is repeatable for 11 credits.

PAC 320, ALI: MOUNTAINEERING I, 1 Credit
Snow climbing techniques, anchoring, belaying and rappelling techniques, snow camping/living skills, and wilderness ethics; classroom instruction and required overnight alpine trip. PAC courses may not be used to fulfill upper-division requirements. 
This course is repeatable for 11 credits.

PAC 321, ALI: MOUNTAINEERING II, 1 Credit
Building on skills learned in Mountaineering I; rope team/glacier travel experience, fundamentals of crevasse rescue, advanced snow climbing techniques, safe anchoring, belaying and rappelling techniques, snow camping/living skills, and wilderness ethics. PAC courses may not be used to fulfill upper-division requirements. 
Prerequisite: PAC 320 with C- or better 
This course is repeatable for 11 credits.

PAC 322, ALI: ICE CLIMBING, 1 Credit
Students will learn the fundamentals of ice climbing, including efficient ice climbing techniques, safe anchoring, belaying and rappelling techniques and wilderness ethics. PAC courses may not be used to fulfill upper-division requirements. 
This course is repeatable for 11 credits.

PAC 323, ALI: MOUNTAIN RESCUE BASICS, 1 Credit
Focuses on developing technical skills in a mountain rescue system. PAC courses may not be used to fulfill upper-division requirements. 
Prerequisite: PAC 320 with D- or better 
This course is repeatable for 11 credits.
PAC 324, ALI: WHITE WATER RESCUE, 1 Credit
Provides an introduction to white water rescue; students learn the fundamentals of white water rescue, scene management, and the necessary gear to perform rescues. PAC courses may not be used to fulfill upper-division requirements. 
*This course is repeatable for 11 credits.*

PAC 325, ALI: WILDERNESS FIRST AID, 1 Credit
Fundamentals of emergency care in a non-urban environment including anatomy, physiology, injury assessment, short-term care, small-group rescues; backcountry emphasis with long-term care and evacuation complications. PAC courses may not be used to fulfill upper-division requirements. 
*Equivalent to: PAC 325H
This course is repeatable for 11 credits.*

PAC 325H, ALI: WILDERNESS FIRST AID, 1 Credit
Fundamentals of emergency care in a non-urban environment including anatomy, physiology, injury assessment, short-term care, small-group rescues; backcountry emphasis with long-term care and evacuation complications. PAC courses may not be used to fulfill upper-division requirements. 
*Attributes: HNRS – Honors Course Designator
Equivalent to: PAC 325
This course is repeatable for 11 credits.*

PAC 326, ALI: BUSH CRAFT, 1 Credit
Basic wilderness living techniques, knowledge and skills needed for a student to be ethical and efficient, and have the ability to survive in the outdoors. Special emphasis is placed on building shelters, water purification, navigation, awareness, fire, self-sufficiency and caring for groups in the wilderness. PAC courses may not be used to fulfill upper-division requirements. 
*Attributes: CSFT – Core, Skills, Fitness
This course is repeatable for 11 credits.*

PAC 327, ALI: ROCK GUIDE SCHOOL, 1 Credit
Serves as an opportunity to learn the skills for being a rock guide for the ALI. With five days of training and practice in the field at two climbing sites in Oregon, it serves to help students understand the unique challenges of instructing climbing in the outdoor environment. This course may end with Sport Climbing Instructor certification through the Professional Climbing Instructors of America. PAC courses may not be used to fulfill upper-division requirements. 
*This course is repeatable for 11 credits.*
*Recommended: Efficient climbers toolbox, self-rescue, climbing wall instructor–lead certification*

PAC 328, ALI: RAFT GUIDE SCHOOL, 1 Credit
Provides students the skills and guided practice time needed to become competent paddle raft guides. It is a nine-day course that focuses on the development of water reading, raft maneuvering, risk management, and whitewater rescue skills needed by raft guides. Successful completion of the course will result in a certificate of completion from the American Canoe Association (ACA). PAC courses may not be used to fulfill upper-division requirements. 
*This course is repeatable for 11 credits.*

PAC 329, ALI: WILDERNESS FIRST RESPONDER, 2 Credits
Fundamentals of emergency care in a non-urban environment, including physiology, injury assessment, short-term care, anatomy, and small-group rescues. PAC courses may not be used to fulfill upper-division requirements. 
*This course is repeatable for 11 credits.*

PAC 330, ALI: SNOW TRAVEL AND CAMPING, 1 Credit
An introduction to traveling in the backcountry in adverse weather conditions that often accompany winter. Topics covered include cross country touring, snow shoeing, winter camping techniques, and winter safety considerations including introducing avalanche safety. PAC courses may not be used to fulfill upper-division requirements. 
*This course is repeatable for 11 credits.*

PAC 332, ALI: AVALANCHE AWARENESS, 1 Credit
Focuses on what causes avalanches, how to safely travel in avalanche terrain, and resources to pursue in understanding the avalanche risk where you are traveling. PAC courses may not be used to fulfill upper-division requirements. 
*This course is repeatable for 11 credits.*

Physical Therapy/Therapist (PT)

PT 700, PROFESSIONALISM AND INTERPROFESSIONAL PRACTICE, 2 Credits
Introduction to the role of the professional in physical therapy practice. Topics of application include communication, professional behavior and abilities, ethics, legal issues, and responsibility for professional development.

PT 711, ANALYTICAL ANATOMY AND IMAGING, 4 Credits
Detailed kinesiologic analysis of appendicular, spine, head, neck, and face muscles. Lecture, clinical demonstration, and practical experiences.

PT 712, NEUROANATOMY AND NEUROSCIENCE, 5 Credits
Organized approach to structures in the brain, spinal cord and peripheral nervous systems. Detailed analysis of Neuropathologic mechanisms underlying normal and abnormal motor sensory function.
PT 713, MUSCULOSKELETAL ANATOMY, 6 Credits
Musculoskeletal anatomy, innervation, blood supply, and function: intensive study of the head, neck, trunk, and limbs.

PT 716, CULTURAL COMPETENCE IN PHYSICAL THERAPY, 2 Credits
An exploration of how cultural competence is a critical core component of professional practice in physical therapy and should be considered as a part of the best practice in providing physical therapy care.

PT 717, GERIATRICS IN PHYSICAL THERAPY, 2 Credits
An overview of the Physical and Psycho-Behavior aspects of aging in adulthood. An introduction to usual and pathological changes and treatment issues relevant to older patients.

PT 718, PSYCHOSOCIAL ASPECTS OF DISABILITY, 2 Credits
A study of behavior, social structures and beliefs, and interaction patterns to support the scientific basis of the effective interactions of physical therapists with patients.

PT 719, PHYSICAL THERAPY IN RURAL COMMUNITIES, 2 Credits
An overview of major issues in the rural health care system and the environment in which physical therapists, as rural health clinicians, must function. Provides students with an understanding of the healthcare delivery system in rural America with a concentration on the diverse populations of the Northwest region of the United States.

PT 720, MOTOR DEVELOPMENT, 3 Credits
Examination of normal development of gross motor, fine motor, language, cognition, psychosocial, and play skills across the lifespan from in utero to young adulthood.

PT 721, MOTOR CONTROL AND LEARNING ACROSS THE LIFE SPAN, 4 Credits
Introduction to sensorimotor systems, overview of current perspectives in motor control and learning from fetus through late adulthood, and clinical tests of motor proficiency.

PT 722, PREVENTION WELLNESS AND POPULATION HEALTH, 3 Credits
A study of the development of wellness plans for individuals or families in the community. Students will learn to assess family health care needs, seek out community resources, and educate community members on specific issues related to their own health and well-being.

PT 730, APPLIED PHYSIOLOGY, 3 Credits
Selected subjects in cellular and systems physiology. Emphasis on molecular and cellular aspects of neuromuscular function, also renal and endocrine physiology.

PT 731, CLINICAL EXERCISE PHYSIOLOGY, 4 Credits
Adaptation of the human body to exercise and the use of exercise to modify human function.

PT 740, THERAPEUTIC EXERCISE I, 3 Credits
Theoretical principles for evaluation of exercise need and prescription of exercise programs. Emphasis on approaches for patients with musculoskeletal deficits.

PT 741, THERAPEUTIC EXERCISE II, 3 Credits
Examination of needs analysis and prescription of exercise programs for special patient populations and assessment of current community trends in exercise and wellness.

PT 743, BUSINESS AND ADMINISTRATION IN PHYSICAL THERAPY, 3 Credits
Examination on the factors affecting patients entry into and progression through the healthcare system, including the effect of current financial, legal and regulatory policies that affect the patient, the patient/professional relationship, and the practice of physical therapy. Provides an overview of primary business disciplines including market research and strategy, marketing, finance, operations, and management.

PT 745, BASICS OF PATIENT MANAGEMENT, 1,6 Credit
Development of basic decision-making skills, professional behaviors and impairment assessment in patients with musculoskeletal, neurologic and/or cardiopulmonary dysfunction. This course is repeatable for 6 credits.

PT 746, DISORDERS OF THE MUSCULOSKELETAL SYSTEM, 3 Credits
Regional description of pathology and pathophysiological mechanisms of disorders of bone, connective tissue, and joints.

PT 748, THERAPEUTIC MODALITIES, 3 Credits
An introduction to the management of pain and dysfunction using thermal, electrical and mechanical modalities used by Physical Therapists in general practice.

PT 750, CLINICAL BIOMECHANICS & GAIT, 5 Credits
Introduction to the principles of biomechanics as they apply to physical therapy practice. Emphasis on joint structure and function and tissue mechanics. Introduction to both normal and pathological gait including examination of joint kinematics, kinetics, and muscle activity.
PT 752, PROSTHETICS AND ORTHOTICS, 3 Credits
The examination of pathological gait of patients using prosthetic and orthotic devices. The course emphasizes types of orthotic and prosthetic devices, assessments, reassessment and corrections of gait deviations using therapeutic interventions geared toward functional interventions, patient/family education, exercises, and balance and coordination techniques.

PT 760, PHARMACOLOGY, 2 Credits
The study of prescription and/or over-the-counter medications used in the management of a variety of patient conditions encountered during physical therapy management.

PT 761, RESEARCH METHODS AND EVIDENCE BASED PRACTICE, 2 Credits
Introduction to evidence based practice, scientific methods, and clinical research methodologies.

PT 780, DIFFERENTIAL DIAGNOSIS, 4 Credits
Consideration of principles of differential diagnosis with emphasis on mastering this skill.

PT 791, MANAGEMENT OF CARDIOPULMONARY DYSFUNCTION, 2 Credits
Physical therapy evaluation and intervention in the care of patients with circulatory, cardiac, or pulmonary dysfunction.

Public Health (H)
H 100, INTRODUCTION TO PUBLIC HEALTH, 4 Credits
A basic overview of public health. Uses a mix of lectures, guest speakers, classroom activities and homework to help students understand the role of public health in eliminating health disparities, understanding epidemics, and setting policy. 
Equivalent to: H 100H
Available via Ecampus

H 100H, INTRODUCTION TO PUBLIC HEALTH, 4 Credits
A basic overview of public health. Uses a mix of lectures, guest speakers, classroom activities and homework to help students understand the role of public health in eliminating health disparities, understanding epidemics, and setting policy. 
Attributes: HNRS – Honors Course Designator
Equivalent to: H 100

H 199, SPECIAL STUDIES, 1-16 Credits
This course is repeatable for 16 credits.

H 201, RESEARCH AND SCHOLARSHIP, 1-16 Credits
This course is repeatable for 16 credits.

H 206, PROJECTS, 1-16 Credits
This course is repeatable for 16 credits.
Available via Ecampus

H 210, *INTRODUCTION TO THE HEALTH CARE SYSTEM, 3 Credits
Provides tools to understand and critically assess the health care delivery system, its components, and the challenges created by its structure. The health care system will be considered from the perspective of several main players [e.g., patients, hospitals, doctors, health plans]. (Bacc Core Course) 
Attributes: CPSI – Core, Pers, Soc Proc & Inst
Available via Ecampus

H 220, INTRODUCTION TO HEALTH DATA ANALYSIS, 3 Credits
Introduction to the application of biostatistics and probability to the health sciences. Topics include quantitative analysis and inference, statistical methods in the biosciences, and quantitative study to evaluate and control health problems. 
Recommended: MTH 105 or MTH 111 or higher mathematics.
Available via Ecampus

H 225, *SOCIAL AND INDIVIDUAL HEALTH DETERMINANTS, 4 Credits
Overview of the macro (social/system/environmental) and micro (individual) contributors to premature disease, disability and population health. Selected behavioral theories supporting health risks and strategies for the prevention of premature disease/disability and the promotion of health. (Bacc Core Course) 
Attributes: CPSI – Core, Pers, Soc Proc & Inst
Available via Ecampus

H 250, INTRODUCTION TO HEALTH CARE MANAGEMENT, 3 Credits
Participants will learn key principles, practices and personalities of health care management. The content is broadly applicable to health care enterprises of every kind: public health organizations, physician practices and clinics, hospitals and health systems, agencies and service organizations, for-profit firms, not-for-profit enterprises, etc. 
Prerequisite: H 210 (may be taken concurrently) with C- or better
Available via Ecampus

H 309, PRACTICUM IN HEALTH CARE SERVICES, 3-6 Credits
Supervised work experience in a health care service setting or health-related agency or program. Weekly progress reports and post-experience summary report and evaluation will be expected. Preplanned with instructor approval. Open to health care administration majors. Graded P/N.
This course is repeatable for 12 credits.

H 310, HEALTH FIELD EXPERIENCES, 3-6 Credits
Introductory field experience in a health or health-related worksite. Graded P/N. 
Prerequisite: H 210 with C- or better
This course is repeatable for 12 credits.
H 312, *HIV/AIDS AND STIS IN MODERN SOCIETY, 3 Credits
Fundamental principles relating to etiology, nature, prevention, and control of AIDS and other sexually transmitted diseases in contemporary society; emphasis on social, psychological, legal, economic, and ethical issues surrounding these diseases. (Bacc Core Course)
Attributes: CSGI – Core, Synth, Global Issues
Equivalent to: H 312H
Available via Ecampus

H 319, INTRODUCTION TO HEALTH POLICY, 3 Credits
Describe the policy development process, including problem conceptualization, agenda setting, role of interest groups and public opinion, analysis of alternatives and selection of policy alternative.
Prerequisite: H 210 with C- or better
Available via Ecampus

H 320, INTRODUCTION TO HUMAN DISEASE, 3 Credits
Fundamental principles relating to etiology, nature, prevention, and control of communicable and noncommunicable diseases in human populations. Special emphasis on disease prevention and health promotion in the high risk diseases of modern, industrialized society.
Available via Ecampus

H 333, *GLOBAL PUBLIC HEALTH, 3 Credits
Introduction to the field of global health, its history, methods, and key principle; understanding global health inequities through case studies; overview of major global health prevention programs. (Bacc Core Course)
Attributes: CPSI – Core, Pers, Soc Proc & Inst
Equivalent to: H 333H
Available via Ecampus

H 333H, *GLOBAL PUBLIC HEALTH, 3 Credits
Introduction to the field of global health, its history, methods, and key principle; understanding global health inequities through case studies; overview of major global health prevention programs. (Bacc Core Course)
Attributes: CPSI – Core, Pers, Soc Proc & Inst; HNRS – Honors Course Designator
Equivalent to: H 333
Available via Ecampus

H 344, *FOUNDATIONS OF ENVIRONMENTAL HEALTH, 3 Credits
Identifies environmentally-linked disease, population growth, and health concerns associated with toxic substances, food quality, air pollution, water pollution, noise, solid and hazardous waste, and pesticide use. Explores scientific topics related to environmental health in a global context that impact our collective environment. Compares and contrasts select environmental problems in the US to those that occur in the global community.
Attributes: CSGI – Core, Synth, Global Issues
Available via Ecampus

H 349, PEER HELPER SKILLS DEVELOPMENT, 3 Credits
Prepares the student for an active role as a peer helper in alcohol and drug abuse prevention and health education. Course work will include: drug, alcohol, addiction and other related health issues, basic listening and communication skills, conflict resolution, crisis recognition and referral. A major component will be affective learning situations designed to promote self-awareness and personal growth.

H 364, DRUGS, SOCIETY AND HUMAN BEHAVIOR, 3 Credits
Drug use and abuse; theories of addiction; basic principles of drug action regarding the use of sedative and stimulative compounds; alcohol; opiates; hallucinogens; designer drugs; cocaine; and over-the-counter products. Particular emphasis on the role of the individual’s value orientation, decision-making, and self-responsibility in treatment and educational approaches to prevention.
Prerequisite: PSY 201 with C- or better or PSY 202 with C- or better
Equivalent to: H 364H

H 364H, DRUGS, SOCIETY AND HUMAN BEHAVIOR, 3 Credits
Drug use and abuse; theories of addiction; basic principles of drug action regarding the use of sedative and stimulative compounds; alcohol; opiates; hallucinogens; designer drugs; cocaine; and over-the-counter products. Particular emphasis on the role of the individual’s value orientation.
Attributes: HNRS – Honors Course Designator
Prerequisite: PSY 201 with C- or better or PSY 202 with C- or better
Equivalent to: H 364

H 376, EVIDENCE-BASED HEALTH PROMOTION, 3 Credits
Future health professionals will learn what makes a successful health promotion program. Students will lean about research-tested programs that are effective for promoting health in community, clinical, and educational settings. Students will begin to develop the skills needed to critically examine evidence in the field and select programs to address current public health issues.
Prerequisite: H 100 with C- or better and H 225 [C-]
Available via Ecampus

H 385, SAFETY AND HEALTH STANDARDS AND LAWS, 3 Credits
Emphasis on the Occupational Safety and Health Act; study includes the scope and duties under the act, enforcement, and adjudication procedures and OSHA litigation; components of Oregon-OSHA.
Available via Ecampus

H 388, *GLOBAL ENVIRONMENTAL HEALTH, 3 Credits
An overview of global environmental issues, including climate change, air pollution, water, e-waste, and metals, and their impacts on human health. (Bacc Core Course)
Attributes: CSGI – Core, Synth, Global Issues
H 399, SPECIAL TOPICS, 1-16 Credits
Equivalent to: H 399H
This course is repeatable for 16 credits.

H 399H, SPECIAL TOPICS, 1-16 Credits
Attributes: HNRS – Honors Course Designator
Equivalent to: H 399
This course is repeatable for 16 credits.

H 401, RESEARCH AND SCHOLARSHIP, 1-16 Credits
This course is repeatable for 16 credits.

H 402, INDEPENDENT STUDY, 1-16 Credits
This course is repeatable for 16 credits.

H 403, THESIS, 1-16 Credits
This course is repeatable for 16 credits.

H 405, READING AND CONFERENCE, 1-16 Credits
This course is repeatable for 16 credits.

H 406, PROJECTS, 1-16 Credits
This course is repeatable for 16 credits.

H 407, SEMINAR, 2 Credits
Seminar to prepare students for their internship in public health. Focus is on professionalism, leadership skills, identifying strengths, and transitioning from college to graduate school or the working world.
Equivalent to: H 407H
Recommended: H 480 for students in EOH (Environmental and Occupational Health) minors. H 250 for students in the HMP (Health Management and Policy) option. H 225 and H 320 for students in the HPHB (Health Promotion and Health Behavior) option.

H 407H, SEMINAR, 2 Credits
Seminar to prepare students for their internship in public health. Focus is on professionalism, leadership skills, identifying strengths, and transitioning from college to graduate school or the working world.
Attributes: HNRS – Honors Course Designator
Equivalent to: H 407
Recommended: H 480 for students in EOH (Environmental and Occupational Health) minors. H 250 for students in the HMP (Health Management and Policy) option. H 225 and H 320 for students in the HPHB (Health Promotion and Health Behavior) option.

H 408, WORKSHOP, 1-16 Credits
This course is repeatable for 16 credits.

H 409, PRACTICUM, 1-6 Credits
Supervised work experience in a public health or health care administration setting. Open to majors in public health. Graded P/N.
This course is repeatable for 16 credits.

H 410, INTERNSHIP, 1-12 Credits
Directed field experience with participation in a community, worksite, or health agency program. Experience is individually arranged to meet student needs. Graded P/N.
Prerequisite: H 407 with C- or better
This course is repeatable for 24 credits.
Recommended: H 436 (for HMP students). H 225 and H 320 and H 476 (for HPHB students)

H 414, BE THE CHANGE FOR GLOBAL HEALTH TRANSFORMATION, 3 Credits
Learn how stigma and discrimination create differences in access to resources and lead to health injustice and disparities. Draw on social justice and community mobilization frameworks to explore health-related social movements and social change necessary to improve public health throughout the world. Contextualize local work to eliminate health disparities in the United States within a global context and as part of global processes. Learn how community mobilization can lead to the transformation of structures, systems, and ideologies that drive discrimination and health disparities.
Prerequisite: H 100 with C- or better

H 415, PEOPLE ON THE MOVE: MIGRATION AND GLOBAL HEALTH, 3 Credits
Overview of migration as an issue of global health importance; social determinants of migrant health and disparities; migrant health and sustainable development.
Prerequisite: H 100 with C- or better

H 416, GLOBAL POVERTY AND HEALTH DISPARITIES, 3 Credits
Learn why poverty remains a primary factor in poor health outcomes around the world, driving limited access to clean water and sanitation, healthful food, education, safety, basic rights, and health care. Examine global poverty, including the causes and consequences of global poverty and the ways in which social structures, identities, and policies shape wealth and health. Discuss global distribution of wealth, the wealth-health gradient and social determinants of health in a global context, causes and consequences of global poverty, and policy and programmatic intervention strategies aimed at reducing material hardship and global inequality.
Prerequisite: H 100 with C- or better

H 418, PUBLIC HEALTH ETHICS AND ISSUES, 3 Credits
Current ethical issues in public health, including gender and ethnicity in employment, pharmaceutical controls, product liability, advertising, and export of high technology.

H 421, MENTAL HEALTH, 3 Credits
Examination of social, governmental, legal and individual mental health issues. Brief overview of some major mental disorders.
Prerequisite: H 225 with C- or better and H 320 [C-]
H 422, HEALTH, AGING AND CONTROL OF CHRONIC DISEASES, 4 Credits
Epidemiology of the major chronic diseases, risk factors, potential methods of prevention/intervention, ethical issues, and efficacy of current methods of prevention and control. Emphasis on adult populations and public health services, policies, and programs at the local, state, and federal levels designed to promote healthy aging. Recommended: 9 credits of health course work.

H 425, FOUNDATIONS OF EPIDEMIOLOGY, 3 Credits
Measures of disease frequency; measures of effect; association and causation; sources of inaccuracy; experimental and observational study designs. Lec/rec.
Prerequisite: H 220 with C- or better or ST 201 with C- or better or ST 314 with C- or better or ST 351 with C- or better
Available via Ecampus

H 432, ECONOMIC ISSUES IN HEALTH AND MEDICAL CARE, 3 Credits
Application of economic principles to the health care field: the demand for medical care and insurance, health care suppliers, health care markets.
Prerequisite: (ECON 201 with C- or better or ECON 201H with C- or better) and H 210 [C-]

H 434, HEALTHCARE LAW AND REGULATION, 3 Credits
Legal aspects of health care delivery; tort law and its applications; professional liability and liability insurance; laws relative to health care institutions, cost controls, antitrust and access. (Writing Intensive Course)
Attributes: CWIC – Core, Skills, WIC
Prerequisite: H 210 with C or better and H 250 [C-] and WR 222 [C-]

H 436, ADVANCED TOPICS IN HEALTH CARE MANAGEMENT, 3 Credits
Covers how health services are governed and organized; how health care organizations assess and adapt to change; constraints/opportunities in shaping organizational performance; leadership; strategic decision-making and the use of evidence-based management in health care.
Prerequisite: H 210 with C- or better and H 250 [C-]
Available via Ecampus

H 445, OCCUPATIONAL HEALTH, 3 Credits
Current and historical topics in the area of occupational health, with particular emphasis on the types of materials that produce human health effects; clinical and epidemiologic data used to assess the public health importance of occupational pollutants and to evaluate control strategies. (Bacc Core Course)
Attributes: CSST – Core, Synthesis, Science/Technology/Society

H 448, PUBLIC HEALTH TOXICOLOGY, 3 Credits
Introduction to the concepts and principles of toxicology as they apply to environmental and occupational health
Prerequisite: H 344 with C- or better
Recommended: One term of basic chemistry

H 449, MASS MEDIA AND HEALTH, 3 Credits
Designed to examine the effects of mass media on population health, from the negative impact of advertising of cigarettes, alcohol and junk food, to the (hopefully) positive impact of public-health campaigns.
Prerequisite: H 225 with C- or better and H 320 [C-]

H 457, FINANCIAL MANAGEMENT OF HEALTH CARE ORGANIZATIONS, 3 Credits
Utilization of standard financial tools needed to manage the capital resources of health care organizations. Includes funding capital projects, product costing, budgeting methods, capital formation and investment strategies.
Prerequisite: H 210 with C- or better and H 250 [C-] and BA 315 [C-]
Available via Ecampus

H 458, REIMBURSEMENT MECHANISMS, 3 Credits
Introduces and analyzes the different types of healthcare reimbursement methodologies used in the U.S. health care system.
Prerequisite: H 210 with C- or better
Available via Ecampus

H 461, SEXUALITY: A HEALTH SCIENCE PERSPECTIVE, 3 Credits
Exploration of the meaning of sexuality from a variety of contemporary health science perspectives; aspects of sex and sexuality fundamental to total health; issues central to the health educator role examined.

H 465, PUBLIC HEALTH AND WOMEN: SOCIAL AND POLICY ISSUES, 3 Credits
Public health approach to the identification of women’s health needs in the United States and in other countries as it relates to the intersection of race, ethnicity, social class, sexual orientation, age, and ability. (Bacc Core Course)
Attributes: CPDP – Core, Perspective, Difference/Power/Discrimination
Recommended: 6 credits in public health.

H 468, FINANCING AND ADMINISTRATION OF LONG-TERM CARE, 3 Credits
Examines the financing and administration of long term care. Emphasis is on a system-wide overview and specific application to nursing facility management.

H 474, PUBLIC HEALTH AND VIOLENCE IN SOCIETY, 3 Credits
Examination of violence as a major public health issue. Historical, social, environmental, economic, behavioral and psychological aspects of assaultive violence, spousal abuse, rape and sexual assault, child abuse, child sexual abuse, suicide, the effects of the media on violence, drug abuse and violence, and related public health problems in contemporary American society. Emphasis on health and the efficacy of current efforts aimed at ameliorating these problems and potential for alternative public health models for prevention and intervention.
H 476, ^PLANNING AND EVALUATING HEALTH PROMOTION PROGRAMS, 4 Credits
A systematic approach to planning, implementing and evaluating health promotion programs in a variety of health related settings. Students will be writing a series of drafts to effectively develop a health promotion program plan. (Writing Intensive Course)
Attributes: CWIC – Core, Skills, WIC
Prerequisite: H 225 with C- or better and H 320 [C-] and H 376 [C-]

H 477, DIETARY INTERVENTIONS FOR PUBLIC HEALTH, 3 Credits
A public health perspective on the practice of population-based dietary intervention. Examination of relevant theories, research, and practice that pertain to health promoters/educators.
Prerequisite: NUTR 225 with C- or better
Equivalent to: NUTR 477

H 480, UNDERGRADUATE EOH SEMINAR, 1 Credit
Explores current topics in environmental health and safety. EOH faculty will discuss their current research interests; EOH graduate student speakers will share their environmental health and safety internship experiences. Documentaries will be viewed to introduce topics of discussion. Features will be discussions relating directly to ongoing, current environmental/occupational health crises, both in the United States and around the world. Graded P/N.
This course is repeatable for 2 credits.
Available via Ecampus

H 489, EMERGENCY AND DISASTER MANAGEMENT, 3 Credits
Study of preparedness, response, recovery and business resumption strategies, activities and applications needed to effectively deal with emergency and disaster incidents.

H 491, SELECTED TOPICS, 1-3 Credits
Recent changes and advances in public health and health care administration and their application to special fields of study. Topics vary from term to term and year to year.
Equivalent to: H 491H
This course is repeatable for 6 credits.
H 491H, SPECIAL TOPICS, 1-3 Credits
Recent changes and advances in public health and health care administration and their application to special fields of study. Topics vary from term to term and year to year.
Attributes: HNRS – Honors Course Designator
Equivalent to: H 491
This course is repeatable for 6 credits.

H 494, APPLIED ERGONOMICS, 3 Credits
Principles of occupational ergonomics for managing optimal worker performance and well-being.

H 495, DESIGN FOR ENVIRONMENT, SAFETY, AND HEALTH, 3 Credits
Systematic consideration of environmental, safety, and health concerns at the earliest possible stage in the lifecycle design engineering of products, technologies, and manufacturing processes.

H 501, RESEARCH AND SCHOLARSHIP, 1-16 Credits
This course is repeatable for 16 credits.

H 503, THESIS, 1-16 Credits
This course is repeatable for 999 credits.

H 505, READING AND CONFERENCE, 1-16 Credits
This course is repeatable for 16 credits.

H 506, PROJECTS, 1-16 Credits
This course is repeatable for 16 credits.

H 507, SEMINAR, 1-16 Credits
Section 1. Internship (1). Graded P/N.
This course is repeatable for 16 credits.

H 508, WORKSHOP, 1-16 Credits
This course is repeatable for 16 credits.

H 509, PRACTICUM, 1-16 Credits
Supervised work experience in a public health or health care administration setting. Open to majors in public health. Graded P/N.
This course is repeatable for 16 credits.

H 510, INTERNSHIP, 1-16 Credits
Directed field experience with participation in a community, worksite, or health agency program. Experience is individually arranged to meet student needs. Graded P/N.
This course is repeatable for 16 credits.

H 511, COMMUNITY, CULTURE, AND GLOBAL HEALTH, 3 Credits
Overview of health issues across cultures, ethnic groups, and regional-national boundaries from a critical and interdisciplinary perspective. Special emphasis on understanding social and behavioral factors that influence health in underserved communities/groups, especially ethnic/racial minorities, women, children, and migrants.

H 512, INTRODUCTION TO ENVIRONMENTAL AND OCCUPATIONAL HEALTH SCIENCES, 3 Credits
Introduction to environmental and occupational health. Hazards affecting human health are examined in the context of current social, political and regulatory pressures.
Available via Ecampus
H 513, INTEGRATED APPROACH TO PUBLIC HEALTH, 12 Credits
An integrated approach to introduce students to the core knowledge and methods used in public health, including evidence-based approaches to public health, public health and health care systems, planning and management to promote health, and policy in public health.

H 514, ENVIRONMENT, SAFETY AND HEALTH SEMINAR, 1 Credit
One-credit graduate seminar on current topics of interest and importance to the environmental health and occupational safety field. Critical reading of research publications, discussion of controversial issues facing ESH professionals, and/or presentation of current ESH research. This course is repeatable for 3 credits.

H 515, RESEARCH METHODS IN SOCIAL AND BEHAVIORAL HEALTH SCIENCES, 3 Credits
Provides an introduction to quantitative research methods and design. Topics include definition of research problems and questions, hypothesis generation, research design, sampling, variable definition and measurement, data collection, and ethical considerations. Also provides a brief introduction to qualitative and mixed methods.

H 516, RESEARCH METHODS IN GLOBAL HEALTH, 3 Credits
Overview of research methods used to understand health, illness, health care, and health-seeking behavior in international settings. Special emphasis on the use of qualitative and mixed methods in international health research.

H 518, PUBLIC HEALTH ETHICS AND ISSUES, 3 Credits
Explores key ethical issues in the context of public health practice; codes and guidelines for ethical conduct of public health practice; issues related to social accountability, vulnerable populations, and ethical framework for community engagement. Available via Ecampus

H 519, DISPLACEMENT, MIGRATION, AND GLOBAL HEALTH, 3 Credits
Critical examination of health of displaced/migrant populations with an emphasis on health disparities and social determinants. Understanding intersections of humanitarianism, migration, vulnerability, and displacement from a global health perspective. Available via Ecampus

H 520, HEALTH DISPARITIES, 3 Credits
Health disparities based on race/ethnicity, culture, social class, and rural/urban residence, among others; strategies to reduce disparities, promote health, and prevent disease in diverse populations. Available via Ecampus

H 522, HEALTH, AGING AND CONTROL OF CHRONIC DISEASES, 4 Credits
Epidemiology of the major chronic diseases, risk factors, potential methods of prevention/intervention, ethical issues, and efficacy of current methods of prevention and control. Emphasis on adult populations and public health services, policies, and programs at the local, state, and federal levels designed to promote healthy aging. Recommended: 9 credits of public health course work.

H 523, FOUNDATIONS OF PUBLIC HEALTH, 4 Credits
Fundamental principles, concepts and tools used in public health to promote the health of populations. Using a combination of case study method, lecture and discussion, students will develop a broad understanding of public health and recognition of how discipline-specializations address the social, behavioral and environmental determinants of public health. Available via Ecampus

H 524, INTRODUCTION TO BIOSTATISTICS, 4 Credits
Quantitative analysis and interpretation of health data including probability distributions, estimation of effects, and hypothesis-tests such as Chi-square, one-way ANOVA, and simple linear regression. Available via Ecampus

H 525, EPIDEMIOLOGICAL METHODS I, 3 Credits
Introduction to the concepts and methods of epidemiology. Topics include measures of population health, screening, study design, measures of association, and interpretation of epidemiological data. Prerequisite: H 513 with B- or better or H 535 with B- or better

H 526, EPIDEMIOLOGIC METHODS II, 3 Credits
Concepts and methods of epidemiological analysis; standardization; stratified analysis; confounding and its control; planning and conducting epidemiologic research; role of multivariate analysis in epidemiologic research. Prerequisite: H 524 with B- or better and H 525 [B-]

H 527, CRITICAL ASSESSMENT OF INTERNATIONAL HEALTH PROGRAMS, 3 Credits
Introduces the critical evaluation framework of assessing international health development programs, based on self-determination and community ownership principles. The framework of assessment method includes three levels: upstream evaluation, midstream evaluation, and downstream evaluation. Recommended: H 528 and H 529

H 528, GLOBAL HEALTH ISSUES, 3 Credits
Examines major issues in health developments of global significance, their causes and impacts on international health, and methods and strategies to address them.
H 529, INTERNATIONAL HEALTH, 3 Credits
Overview of the epidemiological, economic, political, sociological, and cultural factors that impact on international health. Special emphasis on the methods of prevention/intervention utilized in coping with health problems on an international level.

H 530, HEALTH POLICY ANALYSIS AND POLITICS, 3 Credits
Examination of current health policy issues affecting health care programs, services, and organization as well as the role of politics in public health and health policy. Exploration of processes by which health policy proposals are generated, promoted, defeated, modified and implemented.
Prerequisite: H 513 with B- or better or HHS 514 with B- or better
Available via Ecampus

H 532, ECONOMIC ISSUES IN HEALTH AND MEDICAL CARE, 3 Credits
Application of economics principles to the health care field: the demand for medical care and insurance, health care suppliers, health care markets.
Recommended: ECON 201

H 533, HEALTH SYSTEMS ORGANIZATION, 3 Credits
Examines the nature of health and health care services and reviews the role of government and the free market on health services. Alternative ways of organizing, financing, and delivery of health care services are explored.
Available via Ecampus

H 534, HEALTH CARE LAW AND REGULATION, 3 Credits
Legal aspects of health care delivery; tort law and its applications; professional liability and liability insurance; laws relative to health care institutions, cost controls, antitrust and access.

H 535, INTERPRETING EPIDEMIOLOGIC EVIDENCE, 3 Credits
Intended for students in the human sciences and allied health fields. Introduces basic epidemiology concepts. Topics will include measures of disease frequency, assessing population health, causal logic, quantifying associations between exposures and health outcomes, epidemiologic study design, and threats to study validity (random error, bias, confounding). Examples focus on application of epidemiological methods to a variety of health-related fields.

H 536, HEALTHCARE ORGANIZATION LEADERSHIP THEORY AND BEHAVIOR, 3 Credits
Overview of organization theory and behavior in health care organizations. Emphasis is on developing an understanding of the factors and forces that influence the structures, behaviors, and operations of health care delivery organizations. This understanding will be developed through consideration of organizations, their environments, and the roles of individuals working in management.
Prerequisite: H 513 with B- or better or HHS 514 with B- or better
Available via Ecampus

H 537, INJURY EPIDEMIOLOGY, 3 Credits
An overview of the distribution and determinants of injuries, methodological issues specific to injury epidemiology, and approaches to injury control.
Prerequisite: H 513 with B- or better or H 525 with B- or better or H 535 with B- or better or HHS 513 with B- or better
Recommended: Graduate epidemiology training

H 538, PUBLIC AND PRIVATE HEALTH INSURANCE, 3 Credits
Introduction to the principles and practices of public or social and commercial health insurance, and their financial reimbursement mechanisms.

H 540, WATER AND HUMAN HEALTH, 3 Credits
Critically examine the complex relationship between water quality, human activities, and population health.

H 541, AIR QUALITY AND HUMAN HEALTH, 3 Credits
Examination of the major sources of air pollution, its impact on ecosystems and climate change, and population health. Will also discuss technologies and introduce regulations that are used to control air pollutants.

H 542, ENVIRONMENTAL AND OCCUPATIONAL HEALTH RISK ASSESSMENT, 3 Credits
Understand concepts, principles and practices in modern environmental and occupational risk analysis and how they are utilized to make evidence-based decisions by regulatory agencies.

H 543, EXPOSURE SCIENCE I, 4 Credits
Overview of the concepts, principles and practices in modern environmental and occupational exposure assessment. Exposure Science I provides a broad introduction to environmental and occupational exposure assessment methods, while Exposure Science II focuses on sampling and measurement methods.

H 544, ENVIRONMENTAL AND OCCUPATIONAL EPIDEMIOLOGY, 3 Credits
Examines exposure assessment methodology and epidemiological study designs that are commonly used in environmental and occupational health science in order to characterize the impact of environmental and occupational exposures on population health.
Prerequisite: H 525 with C or better
Recommended: Graduate level statistics course

H 546, PHYSICAL AGENTS AND HUMAN HEALTH, 3 Credits
Focus on physical agents (heat, noise, vibration, radiation) and health risks associated with these agents. It covers the range and sources of exposure to physical agents, methods of characterizing these exposures, effects on human health, and the regulations/standards that set limits for physical agents. Lec/lab.
H 547, GIS AND PUBLIC HEALTH, 4 Credits
Applications of geographic information systems (GIS) to public health are reviewed, including mapping, spatial analysis methods, estimating access, and exposure assessment. This course is geared toward individuals involved in public health who have no (or introductory level) knowledge of GIS. Lec/lab.

H 548, PUBLIC HEALTH TOXICOLOGY, 3 Credits
Introduction to the concepts and principles of toxicology as they apply to environmental and occupational health. Recommended: H 344 with a grade of C- or better and one term of basic chemistry.

H 549, MASS MEDIA AND HEALTH, 3 Credits
Examines the effects of mass media on population health, from the negative impact of advertising of cigarettes, alcohol and junk food, to the (hopefully) positive impact of public health campaigns. Prerequisite: H 571 with C or better

H 550, SOCIAL EPIDEMIOLOGY, 3 Credits
Explores the social determinants of health at the population level. Primary focus is on introduction to methods specific to social epidemiology, but will also provide an overview of current understanding of the empirical associations between social factors and health. Prerequisite: H 525 with B or better Recommended: Introductory course in epidemiology

H 551, APPLIED EPIDEMIOLOGICAL ANALYSIS OF SECONDARY DATA, 3 Credits
Practical experience performing a hypothesis-driven epidemiological analysis utilizing secondary surveillance or other appropriate data set, writing an analytical plan, appropriate programming for the analysis (using STATA or SAS), understanding the analysis output, preparing tables, and interpreting results. Prerequisite: H 526 with B- or better and H 560 [B-] and H 580 [B-]

H 552, DISASTER EPIDEMIOLOGY, 3 Credits
Describe the impact of natural and manmade disasters on human health, understand epidemiologic methods specific to disasters, and apply fundamental epidemiologic methods to identify and characterize disaster-related adverse health outcomes. Prerequisite: H 513 with B- or better or H 525 with B- or better or H 535 with B- or better or HHS 514 with B- or better

H 554, EPIDEMIOLOGY OF AGING, 3 Credits
An overview of the core principles of the epidemiology of aging is provided. There will be an emphasis on health and disease processes in older adults. Students will learn essential study design and analytic issues that may arise in studies of aging. Prerequisite: H 513 with B- or better or H 525 with B- or better or H 535 with B- or better or HHS 514 with B- or better

H 555, CANCER EPIDEMIOLOGY, 3 Credits
Introduction to basic concepts and methodology in cancer epidemiology. Prerequisite: H 513 with B- or better or HHS 514 with B- or better or H 525 with B- or better or H 535 with B- or better

H 556, STRATEGIC MANAGEMENT OF HEALTH SERVICE ORGANIZATIONS, 3 Credits
Theories and methodologies of long-range planning and strategic management in health care organizations.

H 557, FINANCIAL MANAGEMENT OF HEALTH CARE ORGANIZATIONS, 3 Credits
Utilization of standard financial tools needed to manage the capital resources of health care organizations. Includes funding capital projects, product costing, budgeting methods, capital formation and investment strategies. Recommended: H 210 and H 250

H 558, REIMBURSEMENT MECHANISMS, 3 Credits
Techniques used in cost-effectiveness analysis. Examples are drawn from the public health and health economics literature.

H 560, PUBLIC HEALTH SURVEILLANCE, 3 Credits
An introduction to public health surveillance systems (national and international) for chronic and infectious diseases. Utility of existing surveillance systems for secondary epidemiological data analysis. Prerequisite: H 524 with B- or better and H 525 [B-]

H 562, INFECTIOUS DISEASE EPIDEMIOLOGY, 3 Credits
Understand epidemiologic methods specific to infectious diseases, apply fundamental epidemiologic methods to infectious disease questions, and describe the broad trends in global infectious disease burden. The application methods and principles will be explored through lectures, discussions, assignments and writing projects. Prerequisite: H 513 with B- or better or H 525 with B- or better or H 535 with B- or better or H 514 with B- or better

H 563, PHYSICAL ACTIVITY EPIDEMIOLOGY, 3 Credits
Physical activity epidemiology will focus on current research, controversial issues, and methodological problems in the epidemiology of physical activity, exercise, and health. Prerequisite: H 513 with B- or better or HHS 514 with B- or better or H 525 with B- or better or H 535 with B- or better

H 564, COMPUTING TOOLS AND HEALTH DATA ANALYSIS, 3 Credits
Modern computational biostatistics for analyzing health data, emphasizing important technologies and methods for data processing and understanding of how they work. Topics will evolve over time as new procedures are developed. Corequisites: H 524
H 565, PUBLIC HEALTH AND WOMEN: SOCIAL AND POLICY ISSUES, 3 Credits
Public health approach to the identification of women’s health needs in the United States and in other countries as it relates to the intersection of race, ethnicity, social class, sexual orientation, age, and ability.
Equivalent to: BA 565
Recommended: 6 credits in public health.

H 566, DATA MINING IN PUBLIC HEALTH, 3 Credits
An introduction to high-dimensional data analysis and data mining techniques used as an information technology tool to extract previously unknown and potentially useful information from large databases in biology, medicine, and public health.
Recommended: H 564

H 568, FINANCING AND ADMINISTRATION OF LONG-TERM CARE, 3 Credits
Examines the financing and administration of long term care. Emphasis is on a system-wide overview and specific application to nursing facility management.

H 569, MATERNAL AND CHILD HEALTH, 3 Credits
Women’s reproductive health and health of children stressing causation, management, and prevention of public health problems. Epidemiological analysis of morbidity and mortality in children and women of childbearing age; impact of social, political and economic influences on the health of women and children; comparison of issues and problems of industrialized versus developing nations. Consideration of health issues of interest to the many diverse racial and ethnic groups of women and children in the U.S. as well as the global village.

H 571, PRINCIPLES OF HEALTH BEHAVIOR, 3 Credits
Theoretical approaches to behavior change in health promotion/education research and practice; factors influencing health behaviors, ethical behavior change issues, behavioral interventions for special populations.
Available via Ecampus

H 572, COMMUNITY ORGANIZATION FOR HEALTH PROMOTION AND EDUCATION, 3 Credits
History, theory, and practice of community organizing for health advocacy; focus on group processes, use of media, leadership, coalitions, grass roots methods and social change.

H 573, INTRODUCTION TO MULTILEVEL/HIERARCHICAL MODELS, 3 Credits
Introduction to the theory and application of hierarchical models to problems in epidemiology and public health. Hierarchical models will be dealt with using both frequentist and Bayesian frameworks.
Recommended: H 581

H 575, EVALUATION OF HEALTH PROMOTION AND EDUCATION PROGRAMS, 3 Credits
Provides theoretical and practical bases for program evaluation. Develops basic skills in a variety of approaches to evaluation, including techniques that are particularly suitable for evaluating health promotion, community health improvement, and related health and social services programs. Course learning is synthesized through designing an evaluation framework and methodology for a relevant program.
Prerequisite: H 513 with B- or better or H 515 with B- or better or HHS 514 with B- or better
Available via Ecampus

H 576, PROGRAM PLANNING FOR HEALTH/HUMAN SERVICES, 4 Credits
Provides students with an introduction to the principles of program planning and the development of program plans, with a focus on evidence-based public health/human services. Students will have the opportunity to integrate skills developed through prior courses in the context of writing a program plan.
Prerequisite: (H 515 with C- or better or HHS 514 with C- or better) and H 571 [C-] and H 575 [C-]

H 578, INTRODUCTION TO MOLECULAR EPIDEMIOLOGY I, 3 Credits
A survey of and introduction to the methods and issues arising in genetics and molecular epidemiology, including key biostatistical methods, study designs, and technologies used in the conduct of these studies. Students will gain experience conducting critical reviews of research papers with respect to study design and biostatistical analysis.
Prerequisite: (H 524 with C or better and H 526 [C])
Recommended: Knowledge of and familiarity with basic concepts of molecular biology (DNA replication, transcription, and translation)

H 580, LINEAR REGRESSION AND ANALYSIS OF TIME TO EVENT DATA, 4 Credits
Multiple linear regression analysis for measurement data and survival analysis methods for time to event health data, including modes of inference, diagnostics, model selection, and reporting conclusions. Lec/lab.
Prerequisite: (H 524 with C or better or HDFS 530 with C or better)

H 581, GENERALIZED LINEAR MODELS AND CATEGORICAL DATA ANALYSIS, 4 Credits
Biostatistical methods focusing on binary and count data will provide a foundation for understanding and implementing generalized linear regression and categorical data models that are commonly used to analyze epidemiological and public health data from cohort, case-control, and clinical trial study designs. Lec/lab.
Recommended: H 580
H 582, ANALYSIS OF CORRELATED HEALTH DATA, 3 Credits
Biostatistical methods for clustered, repeated measures, and longitudinal correlated health data, with an introduction to applications of linear and generalized linear mixed models and generalized estimating equations.
Prerequisite: H 581 with C or better

H 583, ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT, 4 Credits
Studies the design and management principles and practices in the environment, safety and health field.

H 584, ANALYSIS OF INTERVENTION STUDIES AND CLINICAL TRIALS, 3 Credits
Principles of data analysis from intervention studies and clinical trials, including professional graphical and tabular presentation, reproducibility and reliability of measurements, and controlling the Type I error rate when analyzing multiple endpoints. Basic principles of designing experiments are also covered including blocking, stratification, interaction, and control of variability.
Prerequisite: (H 524 with C or better or HDFS 530 with C or better)

H 585, ENVIRONMENT, SAFETY AND HEALTH POLICY AND LAW, 3 Credits
Survey of the environment, safety and health policy and law in the United States. Furnishes the basic knowledge and general understanding about policy and law-related issues important to all environmental health and safety professionals.
Recommended: H 385

H 586, BAYESIAN BIOSTATISTICS IN PUBLIC HEALTH, 3 Credits
An examination of methods for designing and implementing Bayesian analysis to address scientific questions through hands-on experience with health data. This survey course also covers proper interpretation and communication of results from practical Bayesian methods for biostatistics data analysis, with illustrations of the utility of Bayesian ideas in public health.
Prerequisite: H 581 with C or better

H 587, TIME TO EVENT ANALYSIS OF HEALTH DATA, 3 Credits
Biostatistical models and methods for survival analysis of time to event data that are routinely encountered in biomedical and health research.
Prerequisite: (H 524 with C or better or HDFS 530 with C or better)

H 588, APPLIED OCCUPATIONAL SAFETY AND HEALTH, 3 Credits
The management and technical aspects of a workplace safety and health program are identified and assessed. Students completing the course receive a 30-hour OSHA General Industry card.

H 589, EMERGENCY AND DISASTER MANAGEMENT, 3 Credits
Study of preparedness, response, recovery and business resumption strategies, activities and applications needed to effectively deal with emergency and disaster incidents.

H 590, OCCUPATIONAL ERGONOMICS AND BIOMECHANICS, 3 Credits
Examines the advanced theories, applications, and contemporary topics of occupational ergonomics and biomechanics. Topics include muscle physiology, work-related musculoskeletal disorders, assessing biomechanical exposure in the workplace, various material handling assessment tools, 3-Dimensional Static Strength Prediction Program, human vibrations, and implementing ergonomic interventions.

H 591, SELECTED TOPICS, 1-3 Credits
Recent changes and advances in public health and health care administration and their application to special fields of study. Topics vary from term to term and year to year.
This course is repeatable for 9 credits.

H 592, SPATIAL EPIDEMIOLOGY, 3 Credits
An introduction to methods in spatial epidemiology is provided, including spatial exploration of health data, quantifying spatial patterns and clusters, spatial exposure assessment, and explaining patterns and associations.
Prerequisite: H 547 with C or better and H 581 [C]

H 593, REPRODUCTIVE EPIDEMIOLOGY, 3 Credits
Focuses on current research, controversial issues, and methodological problems in the epidemiology of reproductive health.
Prerequisite: H 513 with B- or better or HHS 514 with B- or better or H 525 with B- or better or H 535 with B- or better
Recommended: H 524

H 594, APPLIED ERGONOMICS, 3 Credits
Principles of occupational ergonomics for managing optimal worker performance and well-being.

H 595, DESIGN FOR ENVIRONMENT, SAFETY, AND HEALTH, 3 Credits
Systematic consideration of environmental, safety, and health concerns at the earliest possible stage in the lifecycle design engineering of products, technologies, and manufacturing processes.

H 596, HEALTHCARE EPIDEMIOLOGY, 3 Credits
Focus on current research, controversial issues, and methodological problems in the epidemiology of healthcare. Topics include institutional infection control, medical errors, screening and diagnostic testing, cost-effectiveness, and others related to the delivery and assessment of healthcare, with a focus on the US healthcare system specifically.
Prerequisite: H 513 with B- or better or H 525 with B- or better or H 535 with B- or better or HHS 514 with B- or better
Recommended: H 524
Available via Ecampus
**H 597, METHODS IN FOODBORNE DISEASE OUTBREAK INVESTIGATION, 3 Credits**

Focuses on the practical basis for developing and implementing methods for foodborne disease outbreak detection, investigation and control, using recent outbreaks to highlight underlying principles. Biological characteristics of major foodborne disease pathogens, clinical features of the illnesses its causes and epidemiologic presentations of foodborne outbreaks will be reviewed. The implications of these characteristics will be discussed in a problem solving, interactive format that examines theory and practice in the context of recent outbreaks. Strategies to promote timely decision-making will be emphasized.

**Prerequisite:** H 513 with B- or better or H 525 with B- or better or H 535 with B- or better or HHS 514 with B- or better

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**H 598, HEALTH POLICY ANALYSIS METHODS, 3 Credits**

Analysis of public policies affecting health care programs, services and organizations and the impact of those programs on citizens. Health services research methods, including data sources for health policy research and health policy literature.

**Prerequisite:** H 513 with B- or better and H 533 [B-]

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**H 599, SPECIAL TOPICS, 1-16 Credits**

This course is repeatable for 24 credits.

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**H 601, RESEARCH AND SCHOLARSHIP, 1-16 Credits**

This course is repeatable for 16 credits.

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**H 603, THESIS, 1-16 Credits**

This course is repeatable for 999 credits.

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**H 605, READING AND CONFERENCE, 1-16 Credits**

This course is repeatable for 16 credits.

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**H 606, PROJECTS, 1-16 Credits**

This course is repeatable for 16 credits.

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**H 607, SEMINAR, 1-16 Credits**

This course is repeatable for 16 credits.

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**H 608, WORKSHOP, 1-16 Credits**

This course is repeatable for 16 credits.

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**H 610, INTERNSHIP, 1-16 Credits**

This course is repeatable for 16 credits.

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**H 611, INTRODUCTION TO SYSTEMATIC LITERATURE REVIEWS, 3 Credits**

Students will learn how to apply systematic review methodology to a research question of their choice and understand how literature reviews inform evidence-based decision-making. Examples will focus on applying literature reviews to public health, clinical science, and biomedical research.

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**H 612, DOCTORAL SEMINAR IN PUBLIC HEALTH: RESEARCH AND PRACTICE, 1 Credit**

Contemporary research and professional issues specific to the discipline of public health. Includes responsible conduct of research, writing for publication, professional development and leadership, and faculty research in public health.

This course is repeatable for 9 credits.

**H 613, INDEPENDENT RESEARCH PROJECT, 1-9 Credits**

Independent research project for PhD students, including research design, execution or research, and the formal presentation of findings in written form. Graded P/N.

This course is repeatable for 9 credits.

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**H 614, RESEARCH MANUSCRIPT, 4 Credits**

PhD students write a manuscript to submit to a peer-reviewed journal as part of the course requirements. Graded P/N.

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**H 615, ADVANCED EVALUATION AND RESEARCH DESIGN, 3 Credits**

Provides an in-depth examination of advanced research designs and methods for establishing causal statements about the efficacy, effectiveness and generalizability of public health and social service interventions designed to alter public health and social risk or protective factors.

**Recommended:** H 515 and H 575

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**H 620, ADVANCED TOPICS IN GLOBAL HEALTH INTERVENTION AND PRACTICE, 3 Credits**

Examines the processes and tools involved in planning and evaluating culturally competent health and human service prevention and intervention programs in the global context. Special considerations in program decision-making in the global context (community engagement, cultural competence, sustainability, feasibility, political/ethical issues) will be explored. Provides a key forum for doctoral students to share ongoing developments in their research and practice drawing from fieldwork as well as attended conferences and meetings.

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**H 622, GLOBAL HEALTH SYSTEMS, POLICY AND POLITICS, 3 Credits**

Focuses on learning to identify key stakeholders in the politics of global health, and to be able to describe political and policy processes involved in negotiating global health decisions. Employment of theories and evidence from both the global North and South to explain political processes affecting public health practice and programs.
H 626, GLOBAL HEALTH SYSTEM FINANCE AND STRENGTHENING, 3 Credits
Introduces an analytical framework of health system finance strengthening for global health, from local community to national level and international level. Develops the analytical skill and knowledge for examining the source and mechanism of financing health systems and identify, mobilize, organize, and manage domestic and global health resources. Provides training to examine equity and efficiency of financial burden in a health system, and the strategies to strengthen it.

H 630, QUANTITATIVE HEALTH POLICY RESEARCH METHODS I, 4 Credits
Contemporary doctoral-level quantitative health policy/services research methods emphasizing causal inference when potential endogeneity is present.

H 632, APPLIED HEALTH ECONOMICS, 4 Credits
Advanced doctoral-level quantitative health policy/services research methods emphasizing causal inference when potential endogeneity is present.

H 635, COST EFFECTIVENESS ANALYSIS IN HEALTH AND MEDICAL CARE, 3 Credits
The primary objective of this course is to introduce students to cost-effectiveness studies in health and medical care. Covers the core concepts of CEA, quality adjusted life years, cost calculations, and decision rules.

H 638, PUBLIC AND PRIVATE HEALTH INSURANCE, 3 Credits
Introduction to the principles and practices of public or social and commercial health insurance, their finance mechanisms, and theoretical foundation behind the selection of certain system of health insurance and finance method.

H 639, COMMUNITY-BASED PARTICIPATORY RESEARCH, 4 Credits
Focuses on initiating and conducting research in partnership with communities. Includes in-depth examination of community-based participatory research (CBPR) elements, principles, theories, and approaches; how researchers can successfully partner with communities; and research with minority and/or underprivileged communities; with examples from environmental health, gerontology, and health promotion.

H 642, ENVIRONMENTAL AND REGULATORY RISK ASSESSMENT, 3 Credits
Understand concepts, principles and practices in modern risk analysis and how they are utilized to make evidence-based decisions in public health. Focus will be on real world examples of risk assessment by environmental and occupational regulatory agencies.

H 650, REPORTING RESULTS: WRITING FOR EPIDEMIOLOGY, 3 Credits
Applied experience writing a scientific paper to disseminate results, including deciding on authorship, preparing a lay summary, revising and responding to peer review, and serving as a reviewer.

Prerequisite: H 526 with B- or better and H 551 [B-] and H 580 [B-]

H 651, ADVANCED EPIDEMIOLOGICAL METHODS, 4 Credits
Covers advanced topics in epidemiology. Course expands on many of the same topics as H 526, and explores them in greater breadth and depth. Topics include causal theory, measures of disease and association, confounding, selection bias, predictive models, directed acyclic graphs, effect modification, mediation, indirect and direct effects, study design, and other contemporary topics.

Prerequisite: H 526 with B- or better and H 581 [B-]

H 652, CAUSAL INFERENCE IN EPIDEMIOLOGY, 3 Credits
Discussion of the theoretical framework of causal statistics and the development of modern methods including propensity scores and marginal structural models. Focus is on the inverse probability of treatment weighting; discussion of other estimation methods will be included. Additional topics may include longitudinal causal models, causal mediation, instrumental variables, and other contemporary topics.

Applied examples will be used for illustration.

Prerequisite: H 651 with B- or better

H 659, QUANTITATIVE HEALTH POLICY RESEARCH METHODS II, 4 Credits
Advanced doctoral-level quantitative health policy/services research methods emphasizing health care utilization, expenditures, and outcomes data.

Prerequisite: H 630 with B- or better

H 662, ADVANCED METHODS IN INFECTIOUS DISEASE EPIDEMIOLOGY, 3 Credits
Covers advanced methods and principles for infectious disease research, including framing infectious disease issues into testable hypotheses, designing epidemiologic studies using appropriate sampling strategies, and identifying strengths and weaknesses of various epidemiologic research methods.

Prerequisite: H 526 with B- or better and H 562 [B-]

H 671, ADVANCED THEORIES OF HEALTH BEHAVIOR, 3 Credits
Provides an in-depth examination of major theories of health behavior (both health compromising and health enhancing).

Recommended: H 571
H 672, ADVANCED QUALITATIVE METHODS IN HEALTH BEHAVIOR, 3 Credits
Provides an in-depth examination of the use of qualitative methods in health behavior research and practice. 
Recommended: H 515 and SOC 518 and HDFS 538

H 673, MEASUREMENT OF HEALTH BEHAVIOR CONCEPTS, 4 Credits
Provides in-depth study and field work for graduate students in public health and related fields of the methods used in the conceptualization, development, and evaluation of quantitative measures of health behavior and related concepts. 
Recommended: H 524, H 515, and 3 credits in other quantitative research methods or social behavioral methods (eg. sociology or psychology or health promotion or education programs)

H 675, DEVELOPMENT OF HEALTH BEHAVIOR INTERVENTIONS, 3 Credits
Examines the application of social/behavioral theories in health promotion interventions and in conducting intervention research in diverse populations. The course will focus on program development, on implementation strategies, and on translation into practice. 
Recommended: H 571 and H 575 and H 576

H 676, ADVANCED TOPICS IN HEALTH PROMOTION AND HEALTH BEHAVIOR, 3 Credits
Examines topics of relevance to health promotion and health behavior. Specific topics include current issues and emerging research findings, with a focus on social and behavior science perspectives, analysis of public health problems, and application of principles and practices of health promotion and health behavior. 
This course is repeatable for 6 credits.
Recommended: H 515 and H 571

H 681, ADVANCED TOPICS IN ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND SAFETY, 3 Credits
Advanced topics in the environment, safety and health discipline. Content varies with each offering.

H 683, ADVANCED RESEARCH METHODS IN ENVIRONMENTAL AND OCCUPATIONAL HEALTH, 3 Credits
Covers advanced methods for environmental and occupational health research, including framing environmental and occupational health issues into testable hypotheses, designing appropriate studies, and identifying strengths and weaknesses of different research methods.

H 685, RACE, CLASS, CULTURE AND AGING, 4 Credits
Examines the diversity among the older population in health status, health beliefs/behaviors, and health care, and explores the interaction of culture and structure as determinants of their life chances. The empirical literature used in the course is drawn from the experiences of aging of African-American, Latino, and Asian-Pacific Islander elderly. Taught spring term even years. CROSSLISTED as H 685/HDFS 685. 
Equivalent to: HDFS 685
Recommended: 9 credits of public health or HDFS graduate coursework

H 699, SPECIAL STUDIES, 1-16 Credits
This course is repeatable for 16 credits.