KINESIOLOGY AND HEALTH SCIENCE (KHS)

KHS 110 - Introduction to Health Science (1.0 hour)
Health care professions, terminology, concepts in health science, and basic knowledge and skills of those in health science.
Prerequisite: H S or KHS major or consent of department Chair.

KHS 111 - Introduction to Kinesiology (1.0 hour)
An examination of fundamental principles of human movement, including its structural and functional components. Emphasis is placed on the observation, basic analysis, and quantitative measurement of movement using foundational kinesiological concepts.
Prerequisite: KHS majors only; students with credit in KHS 230, 306, 345, 460, 470, or 480 may not enroll in KHS 111.

KHS 200 - Introduction to Health Systems Science and Artificial Intelligence (1.0 hour)
This one-credit seminar introduces undergraduate students to foundational concepts in Health Systems Science, including healthcare delivery, population health, health equity, value-based care, teamwork, and systems thinking. Emphasis is placed on understanding how healthcare systems function and how emerging technologies, particularly artificial intelligence (AI), are influencing healthcare decision-making, quality improvement, and access to care.
Prerequisite: KHS majors or AI minor; or consent of instructor

KHS 210 - Concepts in Personal Wellness and Fitness (3.0 hours)
An overview of topics designed to provide students with skills and knowledge needed to incorporate concepts of personal wellness and physical fitness. Focusing on the health benefits of personal wellness and fitness, students will participate in exploring concepts critically and in lab activities designed to engage the student actively in planning personalized programs for physical activity, nutrition, and other wellness concepts.
Prerequisite: BIO 111, BIO 113; HS or KHS major or consent of instructor

KHS 220 - Consumer Issues in Health Care (3.0 hours)
Possible care obtained, level of health care, and how to access care for persons from birth to death. Cross listed as FCS 220.
Prerequisite: HS 110 or KHS 110 and HS or KHS major or consent of a cross-listed Department Chair (PT, FCS).

KHS 230 - Measurement in Physical Activity (3.0 hours)
Core Curriculum: EL
Methods of assessing health, fitness, and tolerance during physical activity for program development, group assessment, and research.
Prerequisite: H S or KHS Major or consent of instructor

KHS 300 - Experiential Learning in Healthcare (1.0-4.0 hours)
Core Curriculum: EL
The Experiential Learning in Health Science course provides an engaging opportunity for direct experience in healthcare. Students choose an area of focus to increase knowledge, develop skills, clarify values and develop student's capacity to contribute to their communities. May be repeated under different topics for a total of 4 credit hours; concurrent enrollment in 2 separate sections is permitted.
Prerequisite: HS or KHS major

KHS 305 - Health Minor Practicum (1.0 hour)
Core Curriculum: EL
Self-directed, 40 clock hour practicum focused on health, nutrition, and/or fitness.
Prerequisite: Declared Health minor; FCS 220 or KHS 210.

KHS 306 - Health Science Applications for Sports (3.0 hours)
Integration of the understanding of basic human structure and function with common conditions and injuries that impact the athlete.
Prerequisite: BIO 230, 231, 232, 233; HS or KHS major or consent of instructor.

KHS 310 - Statistical Procedures in Health Sciences (3.0 hours)
Core Curriculum: WI
Principles and procedures for statistical interpretation of data. Study of measures and control tendency, variability, correlation, and introductory predictive and inferential statistics.
Prerequisite: HS or KHS major or consent of instructor; junior/senior standing or consent of instructor

KHS 320 - Applied Physiology of Exercise (3.0 hours)
A systems approach to the study of the human body's response to exercise and physical activity.
Prerequisite: BIO 111, 112; CHM 110, 111, 116, 117; PHY 107; HS or KHS major and junior/senior standing or consent of department chair.

KHS 343 - Ethics of Healthcare (3.0 hours)
Core Curriculum: GP,WC,MI,WI
This course is designed to introduce ethics and promote ethical awareness in healthcare from a global perspective. Students will be asked to synthesize and implement strategies for applying morals, values and ethics in the various settings in which health care is delivered, and will be called to consider the perspectives of all stakeholders, including but not limited to, the role of the healthcare researcher, provider, patient advocate, and consumer. A global perspective will afford an opportunity to investigate the impact that world cultures have on the ethics of healthcare.
Prerequisite: HS or KHS major.

KHS 345 - Motor Control and Motor Learning (3.0 hours)
This course provides an overview of the sensorimotor physiological events related to motor control and motor learning. Concepts of how healthy individuals initiate and execute movement will be discussed as well as strategies for learning novel movements.
Prerequisite: BIO 111, 112, 113, 114; CHM 110, 111, 116, 117; junior/senior standing; HS or KHS major or consent of instructor.

KHS 350 - Special Topics in Health Science (3.0 hours)
Selected topics in the various fields of health science. May be repeated under different topics for a total of six hours.
Prerequisite: cumulative grade point average of 2.75; at least junior standing or consent of department chair.

KHS 362 - Essential Clinical Neuroanatomy (3.0 hours)
Core Curriculum: MI
This course provides an introduction to the human nervous system, focused on pertinent neuroscience material including neuroanatomy, neurophysiology, and disorders of the human nervous system. Emphasis is put on the relationship between structure and function, focusing on the basic neurological examination. A key goal of this course is to provide students with introductory knowledge for engaging in basic clinical problem-solving, by applying neuroanatomical principles to case studies of neurological disorders. Students will also be introduced to the cross-disciplinary nature of studying the human nervous system and will appreciate how neuroanatomical concepts are used in clinical practice across several disciplines.
Prerequisite: BIO 111, BIO 113; junior/senior standing

KHS 380 - Disability and Health in a Global Society (3.0 hours)
Core Curriculum: GP,WC,WI
This course will explore health and disability issues affecting individuals around the world and across the lifespan. Students will develop a greater understanding of the ways in which physical disabilities and health issues impact an individual's ability to participate at home, in the community, and in the workplace. The influence of health care availability, education, cultural practices, and the physical environment will be explored.
Prerequisite: ENG 101 or CIV 111/112; junior/senior standing; HS or KHS major or consent of instructor.

KHS 402 - Educational Methods, Strategies, and Evaluation Techniques (3.0 hours)
Designed to increase theoretical knowledge and practical skill for teaching persons with different learning styles. Classroom experiences include a focus on methods, strategies, and evaluation techniques to meet different learning styles. Cross listed as ETE 402.
Prerequisite: HS or ETE or KHS major or consent of instructor.

KHS 415 - Aging in Motion: Nutrition and Health in Later Life (3.0 hours)
Core Curriculum: MI
This course explores aging through the integrated lenses of kinesiology, nutrition, and public health, offering a holistic view of the lifespan. Students will examine the biological, behavioral, and societal dimensions of growing older, emphasizing mobility, nutrition, and population health. Topics include age-related changes in function, nutritional strategies for older adults, health disparities, chronic disease prevention, and the role of community-based initiatives in promoting healthy aging. Through case studies, applied projects, and collaborative learning, students will develop practical skills and critical thinking to address one of the most pressing global challenges:aging well in an aging world. Cross listed with FCS 415.
Prerequisite: FCS 202; junior/senior standing

KHS 425 - Independent Study (1.0-3.0 hours)
Individual study and investigations through selected readings, discussion, and/or written assignment(s). May be repeated up to a total of three hours.
Prerequisite: HS or KHS major and/or permission of the Department of Physical Therapy chair.

KHS 460 - Kinesiology (3.0 hours)
Basic science principles and functional applications that govern function of normal musculoskeletal system.
Prerequisite: HS or KHS major and junior/senior standing or consent of PT Department chair.

KHS 470 - Health Science Application of Exercise Prescription (3.0 hours)
Lab-based course focused on utilization of scientific knowledge related to increasing flexibility, strength, power, and endurance for practical application in exercise prescription.
Prerequisite: HS or KHS Major; H S 230 or KHS 230, H S 320 or KHS 320, H S 460 or KHS 460

KHS 480 - Motion Analysis (3.0 hours)
Analysis of the kinetic and kinematic principles influencing human motion with emphasis on sport and fitness activity from a health science perspective.
Prerequisite: HS or KHS major and junior/senior standing; HS 320 or KHS 320; HS 460 or KHS 460; or consent of PT Department Chair