# HEALTH & SPORT SCIENCE

## Courses

**HSS 101. Introduction to Learning & Living in the UD Community. 1 Hour**
This course is reflective and transformational in nature. It is designed to provide students with fundamental empowering mindsets, frameworks, perspectives as well as specific tools, techniques, habits and disciplines that they can use during and after college. It will also provide students with the confidence and ability to create and implement new empowering habits and ways of perceiving/being.

**HSS 111. Introduction to Sport & Wellness. 2 Hours**
An introduction to the professions, roles, responsibilities, and opportunities afforded to students in the sport and wellness major. The course will help the student define professional goals and assess personal strengths and weaknesses in the light of competencies deemed essential for their career.

**HSS 113. Introduction to Dietetics & Nutrition. 2 Hours**
This course guides students through vocation and profession specific discernment through reflective, observational and mentoring opportunities. Students will be exposed to the diverse practice areas in the dietetics profession throughout the semester. This is a required course for students admitted into the dietetics major. Must be admitted to the dietetics program.

**HSS 114. Introduction to Health Professions. 2 Hours**
An introduction to the professions, roles, responsibilities, and opportunities afforded to students in the health sciences. The course will help the student define professional goals and assess personal strengths and weaknesses in the light of competencies deemed essential for a health science career.

**HSS 121. Essentials of Youth Fitness. 3 Hours**
Introduction to fitness concepts and developmental differences between youth and adults, with a focus on applying fitness programs within a youth population. Prerequisites: HSS 111 or HSS 114.

**HSS 197. Introduction to Healthcare Delivery. 2 Hours**
This course serves as an orientation to the United States health care delivery system. The student will be introduced to medical/legal issues, professionalism, and ethics. The orientation will also help develop interdisciplinary collaboration, critical thinking, and problem-solving skills. This course is a required course for the BSN curriculum and serves as the prerequisite for NSG 1200 at Sinclair College Nursing.

**HSS 200. Motor Control and Learning. 3 Hours**
Introduction to the Dynamical Systems Theory of motor control and motor learning, with a focus on practical applications for skill acquisition, instruction, and feedback.

**HSS 201. Medical Terminology. 2 Hours**
This course is designed to introduce and build the skills and knowledge needed to develop an understanding of the terminology used in medical and health professions. The mechanism of building a medical vocabulary, utilizing roots, prefixes, suffixes, and the combining forms, and the spelling, pronunciation, and abbreviations are emphasized.

**HSS 202. Healthcare Professionalism and Contemporary Issues Seminar. 1 Hour**
This seminar is intended to build community and identity for BSN pathway students during their first semester of nursing classes at Sinclair College. This seminar promotes involvement with the University of Dayton community, encourages reflective practice, and prepares students to be successful UD BSN students. This seminar will focus on nursing as a profession and professionalism related to individual practice. Students will develop clinical judgment skills through discussion and reflection of contemporary healthcare issues impacting nursing and healthcare delivery that are relevant to the University of Dayton community, as well as regional, national, and global health issues. Students will reflect on their vocation and the Marianist values with regard to professionalism and ways in which they demonstrate resilience. Students must complete Sinclair course NSG 1200 prior to this course and must take Sinclair courses NSG 1400 and NSG 1450 along with this course. Prerequisites: HSS 197.

**HSS 206. Fundamentals of Human Anatomy and Physiology. 3 Hours**
Fundamental-level coverage of human anatomy and physiology. Major topics include: basic chemistry and metabolism, cells and tissues, skeletal, muscular, nervous, endocrine, cardiovascular, and respiratory systems. Prerequisite(s): BIO 101, OR BIO 151, OR CHM 123, OR CHM 200, OR PHY 105, OR PHY 201, OR PHY 206, OR SCI 180, OR SCI 190.

**HSS 207. Fundamentals of Exercise Physiology. 3 Hours**
Introduction to the study and investigation of the function and response of the body systems during various exercise intensities. Prerequisites: HSS 206 or HSS 307.

**HSS 210. Introductory Foods. 3 Hours**
Study of scientific principles applied to the processing and preparation of food to maintain nutritional quality and aesthetic value. Development of skills using tools for menu planning and evaluating the nutrition composition of meals and delivering health messages to the consumer. Prerequisites: CHM 123, CHM 123L, HSS 295. Corequisites: HSS 210L.

**HSS 210L. Introductory Foods Laboratory. 1 Hour**
The study of food, its nutritional benefits and preparation which includes the scientific principles applied to the processing and preparation of food to maintain nutritional quality and aesthetic value. This course will accompany the HSS 210 lecture. Prerequisite(s): HSS 295. Corequisite(s): HSS 210.

**HSS 217. Community Health. 3 Hours**
This course introduces the concepts and principles of community health, using the Social Ecological Model as a framework to examine the risk and protective factors that determine health status. It focuses on how structured inequalities, disproportionate power relations, systematic and social oppressions, and privilege are connected to social determinants of health, health disparities and health inequities. Attention is also given to prevention strategies and the role of evidence-based health promotion and health education in increasing health status and health equity.

**HSS 220. Adapted Physical Activity. 3 Hours**
Course to prepare prospective teachers to adapt a physical education program so all children and youth can successfully participate in activity programs. Study of the atypical child in order to organize and administer a program which will meet individual needs.

**HSS 250. Principles of Management in Health & Sport. 3 Hours**
The nature of management is examined from a theoretical and practical perspective in a variety of sport and wellness settings. Managerial functions and skills are the focus of study in this course.

**HSS 251. Introduction to Sport Analytics. 3 Hours**
Introduction to the process of sport analytics, including preparing and managing data sets, exploring and summarizing the characteristics of data sets, data visualization, statistical analysis and interpretation, and communication of results.

**HSS 253. Sport Facility Operations. 3 Hours**
The processes of planning, constructing, equipping, maintaining, and operating sport facilities are investigated in this course.

**HSS 255. Practicum in Health & Sport Science. 3-6 Hours**
The practicum class is designed to expose students to work within sport or health and wellness management settings. Students can work within a variety of settings in proximity to the university campus. In conjunction, weekly class offer an opportunity for students to compare, contrast, analyze, and evaluate their experience in the various settings. Students are required to work/volunteer approximately 8 hours a week during the semester that they are taking the class.

**HSS 285. Sport Management Field Experience. 3 Hours**
This experience is done after completion of HSS 255. 150 clock hours need to be completed for the 3 semester hour experience.

**HSS 295. Nutrition & Health. 3 Hours**
Study of the nutrient needs of humans and of their choices as modified by socioeconomic, cultural, and life cycle factors. Sophomore standing.

**HSS 302. Community Nutrition. 3 Hours**
Study of the social, cultural and environmental factors relating to dietary behaviors and best practices to addressing nutrition-related needs. Prerequisite(s): HSS 295.

**HSS 303. Food Service Systems Management. 2 Hours**
This course provides an overview of topics related to the management of foodservice organizations in health care, school, hospitality, and other foodservice settings. The major focus includes human resources management, quality management, financial management, regulatory agencies, customer satisfaction, and marketing. Students will demonstrate the importance of menu as the primary control of the food service system - factors affecting menu planning, customer satisfaction, and management decisions.

**HSS 304. Institutional Quantity Food Buying. 3 Hours**
To study quantity food production in foodservice system through application of principles for determining needs and procuring, producing and storing foods in quantity, along with institutional equipment selection, maintenance, and layout. ServSafe® Food Protection Manager Course will be taught in this course, students will be required to successfully complete the certification exam as their final exam for this course. Prerequisites: HSS 210; HSS 210L.

**HSS 305. Human Anatomy. 3 Hours**
A comprehensive view of human anatomy in all systems, incorporating both macro (gross) and micro (histology) levels. This course will also cover the embryological development of particular structures and look at how variations or changes in structure affect function. Prerequisites: BIO 151; CHM 123 or CHM 101.

**HSS 305L. Human Anatomy Laboratory. 1 Hour**
A study of human gross anatomy in a laboratory setting. It requires the identification of anatomical structures within human cadavers, focusing on the correct use of anatomical terminology and anatomical relationships. Prerequisites: BIO 151. Co-requisites: HSS 305.

**HSS 307. Human Physiology. 3 Hours**
Survey of the functions of major human body systems with respect to general cell physiology, specialization into tissues, organ, and organ system physiology. The course is taught primarily from an integrative, systems-based approach, emphasizing common themes of physiology. Prerequisites: HSS 305, minimum grade of C; BIO 151; CHM 123 or CHM 101. Corequisites: HSS 305L, HSS 307L.

**HSS 307L. Physiology Laboratory. 1 Hour**
Systematic approach to the acquisition and interpretation of information about the physiology of living systems. One three-hour laboratory per week. Corequisite(s): HSS 307.

**HSS 309. Theories and Techniques for Health Behavior Change. 3 Hours**
Students in this course will develop and demonstrate practical wisdom in addressing real human problems such as chronic health conditions with evidence-based prevention and intervention tools. Students will draw upon advanced knowledge of the complex factors that influence health behavior and will develop knowledge and skills in counseling supportive of health and/or nutrition related behavior change. Prerequisites: PSY 101, HSS 295.

**HSS 311. Fundamentals of Exercise Physiology. 3 Hours**
Introduction to the study and investigation of the function and response of the body systems during various exercise intensities. Prerequisites: HSS 206 or HSS 307.

**HSS 320. Essentials of Strength Conditioning. 3 Hours**
Course designed to prepare students for the certified strength and conditioning specialist (NSCA) exam. Topics included will pertain to muscular strength and endurance conditioning, physiology of strength conditioning, muscular strength testing and evaluation, and organization/administration of strength training programs.

**HSS 321. Essentials of Personal Training. 3 Hours**
To provide students with specific, real-world information regarding the knowledge, skills, and expectations associated with a competent personal trainer or fitness professional. Additionally, this course is designed to prepare students for the nationally accredited Certified Personal Trainer (CPT) certification exam. Prerequisite(s): HSS 305 or BIO 475.

**HSS 330. Leadership in Sport. 3 Hours**
As our society and industries adapt and reinvent themselves, especially in the sport (service) industry, there is a need for individuals within organizations to step up to the role of a leader, independent of their formal position. Therefore, the purpose of this course is for students to start (or continue) to develop their self-awareness, understanding, knowledge and practice of leadership.

**HSS 331. Sport Ethics. 3 Hours**
Study of the ethical decisions in sport and athletics, using case analysis and real world examples to assist future sport management professionals to develop a set of moral reasoning skills to self-evaluate, examine, and critically analyze ethical issues they will encounter in their professional careers. Prerequisite(s): Junior/Senior status.

**HSS 335. Introduction to Athletic Training. 3 Hours**
Application of principles and methods of injury prevention, evaluation, immediate care, treatment, and rehabilitation. Prerequisites: HSS 206 or HSS 305.

**HSS 341. Extreme Sports. 3 Hours**
No description available.

**HSS 342. Business of Baseball. 3 Hours**
This course will guide students through various parts of the business of baseball beginning with the historical beginnings of the game through the current digital transformation. Various parts of the business, including media relations, international play, media sales and player relations, will be introduced by leveraging interviews with current and former industry executives, scholarly journal entries and recent media articles. All modules will lead to a final project where students will be asked to apply module learnings and think critically, creatively and courageously to create a future event for baseball.

**HSS 346. Clinical Assessment and Electrocardiography. 3 Hours**
This course takes an interdisciplinary, patient-centered approach to basic clinical assessment. Elements of the exam, process of data gathering, and conducting a physical exam will be covered for various populations and situations. Basics in 12-lead electrocardiography (ECG) interpretation will be covered with a focus on conducting cardiac stress tests. Prerequisite(s): HSS 307 or BIO 403.

**HSS 349. Sport Finance. 3 Hours**
A survey of concepts and theories in financial management and their applications in sport and wellness industries. Specific topic areas covered include both techniques in financial analysis and financial issues in intercollegiate, recreational and commercial sport industries.

**HSS 350. Business of Soccer. 3 Hours**
Study of international sport management issues through the perspective of European soccer with particular reference to professional soccer in England including the Premier League, Spain (La Liga), Italy (Serie A), Germany (Bundesliga), the UEFA Champions League, as well as major international governing bodies such as FIFA and UEFA.

**HSS 353. Sport Media. 3 Hours**
This course examines the unique role and impact of the media in global sport industry. Identification of the grand spectrum of activities and mediums comprising the media is explored from both theoretical and practical perspectives. The ever-growing role of both traditional and new media are investigated. This course also orients students to the academic and professional literature accessible in the field of sport management and develop knowledge and skills necessary for students to effectively pursue career opportunities in the field. Students will gain an understanding of the commercialized nature of sport media and exercise the analytical skills to “read” and “develop” media products in sport management. The class will also critically explore the interrelationship between sports and media in modern society and how that interrelationship reinforces social values and cultural representation of politics, race, and gender.

**HSS 354. Global Sport, Culture, & Business. 3 Hours**
This course examines the interplay between the local dynamics and the globalizing forces shaping contemporary global sport culture and business. Focusing specifically on a broad range of national and international contexts, the course identifies—and seeks to explain—patterns of similarity and difference in cultural and political identities, business operations, and governance in the global sporting world.

**HSS 356. Organizational Behavior in Health & Sport. 3 Hours**
Overview of the individual, group, and organization level factors utilized to manage people for personal, team, and organizational effectiveness in health, wellness, and sport organizations. Prerequisite(s): HSS 255 for ESM majors; None for EHA majors.

**HSS 357. Sports Marketing. 3 Hours**
Course content is designed to give students an understanding of marketing principles applied to sport, sport events, and sport products. Marketing strategies including the sales, promotions, and advertising of sport will be emphasized.

**HSS 358. Sales & Fundraising in Sport. 3 Hours**
Examination and understanding of sales and fundraising techniques. Students will gain first-hand experience in developing new skills for the job market.

**HSS 360. Sport and Bodies. 3 Hours**
Critical examination of the historical and contemporary ways in which the human body is altered/modified, displayed/portrayed, valued/devalued, and included/excluded in terms of gender, race, social class, and ability status within sports. This course will examine how sport and bodies function in the political, social, and economic systems of the U.S. and globally. Using the perspectives of health and sport sciences and sociology, this course examines sport and bodies from macro and micro perspectives.

**HSS 370. Healthcare Administration. 3 Hours**
The course introduces students to foundational concepts in health administration, providing an overview of the roles, skills and functions of a health administrator. Additionally, it provides an overview of the critical issues in healthcare in the United States. Attention is given to the factors that impact decision making in healthcare settings.

**HSS 371. Foundations of Epidemiology. 3 Hours**
The purpose of this course is to provide students with an introduction to epidemiology, including essential concepts, calculations, data interpretations and applications. Prerequisites: MTH 207 or PSY 216 or by permission of instructor.

**HSS 384. Food Justice. 3 Hours**
Diversity, social inequality and social justice are integral aspects of the fields of health science, sociology, and humanities. These issues particular to food are relevant in thinking about the challenges that people in Dayton and around the globe face. Through the combined analysis of at least two academic units, students will learn how to perform descriptive and normative analysis, as well as how to focus on pragmatic opportunities to address and ameliorate food injustice. Prerequisite(s): Sophomore-status.

**HSS 395. Nutrition through the Lifecycle. 3 Hours**
An examination of the role of nutrition in growth, development, and health across the life cycle. Includes a study of nutrient requirements, nutrition assessment, and nutritional care for those in each life stage. Prerequisite(s): HSS 295.

**HSS 400. Research Experience in Health and Sport Science. 0-1 Hours**
A faculty mentored research experience in the field of health or sport science. Research experiences may include laboratory or field-based data collections, data processing and analysis, and results reporting.

**HSS 401. Nutritional Biochemistry I. 3 Hours**
Extension of the student's knowledge of the science of nutrition, highlighting the biological roles of macronutrients and their metabolism. This course integrates information on the roles of macronutrients in nutrition and health as it relates to various health conditions. Prerequisites: CHM 313, HSS 307.

**HSS 405. Tests & Measurements in Sport Science. 3 Hours**
This course is designed to provide students with the skills required to identify and implement various fitness testing protocols related to the components of health and skill related fitness.

**HSS 408. Physiology of Exercise. 3 Hours**
Detailed study of the effects of exercise on human functions, as a basis for the study of physical fitness, motor skills, and athletic training. Prerequisite(s): HSS 305; (HSS 306 or HSS 307).

**HSS 408L. Physiology of Exercise Laboratory. 1 Hour**
Course to accompany HSS 408. Weekly two-hour laboratory stressing practical applications of exercise physiology. Prerequisite(s): HSS 305; HSS 307. Corequisite(s): HSS 408.

**HSS 409. Kinesiology. 3 Hours**
An investigation and analysis of the basic biomechanical principles underlying human movement. Prerequisites: HSS 305; HSS 307, minimum grade of C.

**HSS 409L. Kinesiology Laboratory. 1 Hour**
Hands-on kinesiology laboratory course to accompany HSS 409 - Kinesiology enabling the assessment and application of biomechanical analysis. Prerequisites: HSS 305; HSS 307. Corequisites: HSS 409.

**HSS 422. Exercise for Special Populations. 3 Hours**
Course designed to prepare prospective exercise specialists to adapt physical education and exercise so that all individuals can successfully participate in activity programs. A study of various disabilities and conditions in order to organize and administer a program which will meet individual needs. Prerequisites: HSS 307 or HSS 206. Corequisites: HSS 408 or HSS 311.

**HSS 428. Research in Sport and Health Sciences. 3 Hours**
Application and practice of research in a student's chosen profession and vocation. Emphasis will be designing and evaluating study designs, collection, analysis, interpretation, and communication of data, and role of research in professional practice. Prerequisites: MTH 207.

**HSS 431. Nutrition for Exercise & Sport Science. 3 Hours**
Investigation of current research in the nutritional assessment of the athlete. Topics include dietary needs, fluid replenishment, pre-game meals, and "fad" diets for the athlete. Pre-requisite(s): HSS 295.

**HSS 439. Professional Seminar in Dietetics. 2 Hours**
The focus of this course is on a critical reflection of students' past, present, and future contributions to their communities in the context of their vocation. Students in this course will provide mentoring to HSS 113 students and prepare an internship portfolio. Prerequisites: HSS 494.

**HSS 444. Sport and Wellness Seminar. 2 Hours**
The focus of the course is on critical reflection of students' past, present, and future contributions to their communities in the context of their vocation. Students will prepare an artifact that represents these efforts that will be archived by the department. Strategies that will be beneficial to making a seamless transition post-graduation will be emphasized. Students should have taken at least 90 credit hours prior to enrolling in the class.

**HSS 445. Pharmacology. 3 Hours**
This course is a survey of pharmacology principles relevant to the future health professional. Pharmacokinetics and dosing principles will be introduced. Specific common drugs affecting the major body systems will be covered. Prerequisite(s): HSS 307 or BIO 403.

**HSS 448. Safety & the Law in Health & Sport. 3 Hours**
This course is a study of the legal aspects of sport, athletics, exercise, and wellness as well as the analysis of specific court cases and the formulation of preventative law policies and procedures. Prerequisites: MGT 201.

**HSS 450. HSS Capstone. 1-3 Hours**
The Health & Sport Science capstone is a reflective experience that concludes with a presentation in the scholarship, activity and/or practice related to the student's major and concentration. Students will present their work in a forum appropriate to the major. Prerequisites: Senior status.

**HSS 455. Selected Studies in Exercise Science. 1-3 Hours**
Investigating, analyz-ing, and reporting on a problem in physical education. Prerequisite(s): Permission of department chairperson.

**HSS 456. Nutritional Biochemistry II. 3 Hours**
Extension of the student's knowledge of the science of nutrition, highlighting stressing the biological roles of micronutrients and their metabolism.This course integrates information on the roles of micronutrients in nutrition and health as it relates to various health conditions. Prerequisites: HSS 401.

**HSS 465. Health Science Seminar. 1 Hour**
The focus of the course is on critical reflection of students' past, present, and future contributions to their communities in the context of their vocation. Students will prepare an artifact that represents these efforts that will be archived by the department.

**HSS 485. Health & Sport Science Internship. 1-12 Hours**
The internship provides students with the opportunity to pursue immersive and engaging experience in their chosen field of profession. A minimum of 300 on-site working hours is expected unless approved by the advisor. Prerequisites: HSS 255.

**HSS 488. Special Topics in Health and Sport Science. 3 Hours**
Topics of special interest to faculty and students; intensive critical evaluation of appropriate literature. Example topics include: environmental physiology, sex and gender physiology, nutrition in obesity and diabetes, sports biomechanics, sports mega-events, luxury seating, concussion management, etc.

**HSS 491. Exercise Science Internship. 1-3 Hours**
Work experience carried out under the auspices of an industrial, commercial, educational, government or health agency-related wellness program. Application and permission of director of Exercise Science and Fitness Management program required.

**HSS 492. Human Anatomy Dissection Lab. 3 Hours**
This is a team based learning course where students will work in groups to complete a full body human gross anatomy dissection with a human donor. Students will complete dissections to identify structures in all systems, review the anatomical relationships, and make connections between structure and function. Completion of the course will include a reflection on the learning experience and the use of human donors for medical treatments, education, and/or research. Prerequisites: HSS 305, HSS 305L, HSS 307.

**HSS 494. Assessment of Nutritional Status. 3 Hours**
This course provides foundational coursework in the Nutrition Care Process with an emphasis on the nutrition assessment. The course will cover anthropometrics, biochemical analysis, clinical assessment to include Nutrition Focused Physical Exam, diet assessment, energy estimation, and body composition assessment. Prerequisite(s): HSS 295, HSS 307, third year student.

**HSS 495. Medical Nutrition Therapy I. 3 Hours**
Study of pathophysiology, nutrition care process, nutritional diagnostic therapy, and counseling and education theories for the purpose of disease management to include: weight management, metabolic surgeries, diabetes, cardiovascular disease, upper & lower gastrointestinal disorders, functional nutrition. Prerequisites: HSS 494.

**HSS 496. Medical Nutrition Therapy II. 3 Hours**
Study of pathophysiology, nutrition care process, nutritional diagnostic therapy and counseling services for the purpose of disease management to include advanced disease states to include: malnutrition, pancreatitis, end stage liver disease, non-alcoholic liver disease, renal disease, nutrition support, pulmonary disease (COPD, Bronchitis, CF), critical illness and metabolic stress, oncology. Prerequisite(s): HSS 495.

**HSS 497. Advanced Experimental Methods in Health Science. 3 Hours**
This course is focused on developing and applying advanced experimentation skills with a specific focus on techniques associated with the study integrative human physiology and neuromechanics. Emphasis on equipment and technology, data analysis and interpretation, statistical methods, and technical reporting. Prerequisite(s): HSS 206 or HSS 307 or BIO 403 or Instructor Permission.

**HSS 498. Honors Thesis. 3 Hours**
Selection, design, investigation, and completion of an independent, original research thesis under the guidance of a faculty research director. Restricted to students in the Berry Scholars Program with permission of the program director.

**HSS 499. Honors Thesis. 3 Hours**
Selection, design, investigation, and completion of an independent, original research thesis under the guidance of a faculty research director. Restricted to students in the Berry Scholars Program with permission of the program director.

**HSS 531. Nutrition Exercise & Sports. 3 Hours**
Investigates the latest research trends in the nutritional assessment of the athlete. Topics will pertain to dietary needs, fluid replenishment, pre-game meals, and 'fad' diets for the athlete.

**HSS 534. Integrative and Functional Nutrition. 3 Hours**
Examination of the philosophy and practice of Integrative and Functional Nutrition. Evidenced-based principles will be applied to a systems-based approach to exploring and examining traditional and non-traditional healing practices as they relate to nutrition outcomes. Prerequisite(s): Matriculated to the MDN program, non-matriculated students may apply if space available.

**HSS 537. Biomechanics. 3 Hours**
Investigations of physical principles operative in the performance of physical education activities with attempts to analyze for methods of greater effectiveness and improved performance.

**HSS 540. Instructional Strategies. 3 Hours**
Contemporary research on teaching in physical education, sport instruction, and an in-depth study of Mosston's Spectrum of Teaching Styles serve as the primary foci of this course.

**HSS 545. Advanced Clinical Nutrition. 3 Hours**
Examines the biochemical and medical background of a wide variety of clinical conditions with specific application to nutritional treatment or management. The procedures followed for the nutritional assessment, planning, implementation and evaluation of the clients are presented. Integrates evidence-based practice and research to answer a clinically relevant nutrition question. Prerequisite(s): Students enrolled in the MDN program.

**HSS 548. Safety & Law: Sport Science. 3 Hours**
Study of basic safety measures to prevent injuries and avoid legal suits. Investigation of the fundamental principles involved in the legal aspects of sports in contemporary society. Analysis of specific court cases dealing with negligence in physical education and sport.

**HSS 550. Physiological Response in Exercise. 3 Hours**
Study of the physiological changes that occur during exercise and training.

**HSS 551. Laboratory Techniques in Sport Science. 3 Hours**
The practical application of selected sport science tests and measurements. Emphasis will be placed on human performance (strength, cardiovascular, flexibility, and body composition) testing.

**HSS 552. Becoming a Leader and Change Agent. 3 Hours**
This course is experiential in nature. It is built on two premises. One, to lead others we must first lead ourselves. Two, having a healthy and flexible relationship with change is now a required skill given the rapid advancements and changes in our current world. Success in this course will be achieved by looking at the external challenges and constraints one faces in life/work, then looking inwardly as an access to altering ones responsibility and ability to lead.

**HSS 555. Sport Science Research & Design Processes. 3 Hours**
This course is designed to develop an understanding of the nature of the general field of sport science research. It emphasizes the application of various research processes and design, learning by doing, and learning through example. Intended for use by individuals who have minimal knowledge of statistics.

**HSS 556. Issues in Sport Science. 2 Hours**
Seminar to investigate and report on a specific issue in sport science.

**HSS 560. Evaluation & Application of Statistics in Sport Science. 3 Hours**
Application of descriptive and inferential statistics to sport science tests and measurements. Quantitative analysis of selected physical fitness, motor performance, and body composition data.

**HSS 563. Advanced Statistics in Sport Science. 3 Hours**
The theory and hands-on applications of various social science statistical analyses to include: independent and dependent groups t-test, analysis of variance and covariance, multiple regression and non-parametric analyses. Students will use selected statistical software packages to execute real-world analyses problems.

**HSS 566. Evidence-Based Practice, Research and Statistics. 3 Hours**
This course focuses on application and interpretation of statistical techniques appropriate for health science and evidenced-based practice in the healthcare setting. Emphasis on the process of identifying clinical questions, searching and appraising the evidence for potential solutions/innovations, developing methodology, developing and planning methodology and practice changes, analyzing and evaluating the outcomes and identifying additional gaps in nutrition knowledge will be covered through the completion of evidence analysis review papers.

**HSS 574. MDN Research Seminar. 3 Hours**
The purpose of the research seminar is to develop a greater understanding of quantitative and qualitative methodologies, research interpretation, applied statistical analysis, and technical writing skill development. Students will develop the ability to synthesize new ideas and conclusions from a literature review, critically evaluate current research design, methodologies, and statistics to better utilize evidence-based practice as registered dietitian nutritionists in a variety of practice settings. Prerequisites: HSS 566.

**HSS 575. Independent Study in Physical Education & Sport Science. 1-6 Hours**
Individual investigations of a problem in sport science. Students may not register for HSS 575 without having completed HSS 555 and HSS 560.

**HSS 582. Internship in Sport Science. 1-4 Hours**
Job-related experience under the immediate supervision of personnel from a local sport science agency.

**HSS 586. Advanced Community Nutrition. 3 Hours**
Students will learn and incorporate different assessment and behavior models/theories/frameworks as well as use evidence-based practice to develop, implement and evaluate a nutrition intervention for a population with whom they are working. Further, students will develop an educational module to provide information regarding nutrition resources available to the identified population. During the course, students will learn how to be involved in nutrition policy and will identify and advocate for a nutrition policy issue at the local, state or federal level. Prerequisite(s): HSS 545 and HSS 566.

**HSS 587. Advanced Food Science, Management, and Sustainability. 3 Hours**
This course is an in-depth study of the major trends and current issues of concern to the foodservice management professional to include agricultural practices, food science, and sustainability. Analysis of the influence of the external environment on economic, technological, political and regulatory environments, and socio-cultural trends will be covered.

**HSS 591. Research Project. 1-6 Hours**
The development, planning, execution, analysis and manuscript completion of a research thesis in the sport sciences. The specific research question will be the student's choice with concurrence from his/her project advisor. Submission of the written product to a peer-reviewed research journal of at least national distribution is required before graduation. Students will also complete a successful oral defense of the thesis before the predesignated thesis team of at least three graduate faculty members from the School of Education & Allied Professions, two of which are from the Department of Health & Sport Science.

**HSS 595. Dietetics and Nutrition Capstone. 3 Hours**
A multi-faceted research-based project that will demonstrate attainment of skills and objectives to serve as a culminating academic, scholarship and intellectual experience. Each student's capstone project will be identified in collaboration within their supervised practice or other identified site and will result in a tangible outcome that can be utilized in the scope of nutrition-related practice within a healthcare setting. Students will present their project in the form of a final written report and an oral presentation. Prerequisite(s): HSS 566.