SPORTS SCIENCE AND ANALYTICS (M.S.)

Overview

Sports Science is an emerging field that uses innovations in technology and big data to enhance the decision-making process of athletic performance and rehabilitation in an array of active populations. Sports scientists have a unique blend of skills that include leading groups of clients through training and conditioning programs due to their acquired competencies in Exercise Science, while also having advanced training in biometric (e.g., skeletal muscle force production, electromyography, pupil eye gaze, cognitive/sensory decision-making, and central nervous system readiness) technology and data analytics. The sports scientist regularly gathers and analyzes biometric and physiological data for the sake of:

- Profiling, benchmarking, and establishing key performance indicators (KPI)
- Daily monitoring of readiness and stress levels
- Strategic analysis for competition

The data is analyzed and visualized using computer software skills, then collaborated with the High-Performance Unit of athletics (e.g., sport coaches, athletic trainers, strength and conditioning/sports performance specialists, physical therapists, dieticians, sports psychologists, and the athlete themselves) to assist and direct in the assessment, design, and implementation of sport skill practice, sport performance sessions, and rehabilitation programs with a specific focus on sport performance and the overall health and wellness of the individual client.

The Master of Science (M.S.) degree in Sports Science and Analytics provides students with the additional training and preparation needed for this new, sought after profession. The degree is grounded in high amounts of practical, real-world experiences, both on-campus integrated with Linfield athletic teams, and with our robust off-campus internship with high-level organization (professional and collegiate).

Master-prepared sports scientists find employment in a sports team setting and organization, as well as private fitness facilities and clinics. For graduates who have career goals that include doctoral preparation, such as professional doctorate (e.g., Doctor of Physical Therapy) or a research doctorate (e.g., Ph.D. in Exercise and Sport Science), the M.S. degree coursework combined with a summative research project, will position students for future success in such programs, if students choose to continue along this path.

Admission Requirements

Please check Admission Policies for a full description of Admission Requirements (http://catalog.linfield.edu/admission-policies/mcminnville-campus/graduate-programs/ms-sports-science-and-analytics/) for the Master of Science: Sports Science and Analytics program.

Requirements

A total of 33-35 credits, including:

Code	Title	Credits
Foundational Courses		
HHPA 512	EXPERIMENTAL DESIGN IN SPORTS SCIENCE	3
HHPA 545	SENSORY AND MOTOR PERFORMANCE	3
HHPA 552	SPORT BIOMECHANICS	3
HHPA 582	SPORT PHYSIOLOGY	3
HHPA 584	TECHNOLOGY AND DATA ANALYSIS IN SPORTS SCIENCE	3
9 credits from the list below		**9**
BNSL 530	SPORT LEADERSHIP	
BNSL 531	SPORT SALES & MARKETING	
BNSL 532	SPORT LAW	
BNSL 533	SPORT ANALYTICS	
HHPA 560	SPORT PERFORMANCE TRAINING TECHNIQUES	
HHPA 562	PERIODIZATION FOR SPORT PERFORMANCE	
HHPA 565	MENTAL AND SOCIAL VARIABLES FOR SPORT PERFORMANCE	
HHPA 586	SPORTS SCIENCE PRACTICUM	
HHPA 599	INDEPENDENT STUDY IN SPORTS SCIENCE	
Experiential Courses		
HHPA 587	SPORTS SCIENCE INTERNSHIP	3-5
HHPA 610	SUMMATIVE RESEARCH I	3
HHPA 612	SUMMATIVE RESEARCH II	3
Total Credits		**33-35**