Sport Analytics and Performance

Graduate Certificate in Sport Analytics and Performance

CERTIFICATE CODE - CG84

The Graduate Certificate in Sport Analytics and Performance provides advanced, applied training in sport analytics, athlete development, and high-performance technologies. Designed for professionals and graduate students seeking to integrate data-driven insights with human performance expertise, this 12-credit program combines theoretical coursework with immersive residencies in WVU Baseball's Biomechanics and Performance Center. Through hands-on engagement with research-grade analytic tools and real-world performance environments, participants learn to transform complex data into actionable strategies that enhance athletic outcomes, support team culture, and drive innovation. Grounded in WVU's land-grant mission and R1 research distinction, the program prepares graduates to lead in the evolving, technology-enabled sport and performance industry.

Course Requirements: Students must have a cumulative GPA of 2.75 to graduate from the program. Each required class must be completed with a grade of a C- or better. Graduate students with a cumulative grade point average (GPA) below 2.75 will be placed on academic probation.

Code	Title	Hours
ACE 524	Data Analytics in Sport Development & Performance	3
ACE 525	Talent Development and Identification in Sport	3
SPSC 558	Advanced Sport Analytics and Performance Residency 1	3
SPSC 559	Advanced Sport Analytics and Performance Residency 2	3
Total Hours		**12**

Certificate Learning Outcomes

SPORT ANALYTICS AND PERFORMANCE

This graduate certificate is a professional advancement credential, preparing students for leadership roles in collegiate, professional, and emerging sport sectors. It elevates learners who already have foundational training by moving them into positions of independent practice, supervision, and innovation in applied sport sciences environments. Graduates of the certificate program will be able to:

- Apply advanced theories and tools in sport analytics to high-performance contexts.
- Operate, troubleshoot, and evaluate a range of performance technologies.
- Translate biomechanical and analytic insights into actionable strategies for talent identification and athlete development.
- Lead interdisciplinary teams, mentor undergraduate assistants, and coordinate performance workflows,
- Evaluate emerging technologies using a critical lens and propose evidence-based improvements.