SPORT ANALYTICS, CAS

Contact

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Program Description

The Certificate of Advanced Study (CAS) in sport analytics program requires 12 credit hours covering specific focus areas of sport analytics statistics and methods, visualization tools, programming in R and Python, use of databases and SQL, linear regression and econometric techniques, and machine learning tools. The courses use data and examples exclusively from the sports industry, both on the player/team performance and business aspects of the discipline. It comprises 4 core courses (12 credits) that all students will take as part of the program.

Admissions

For admission, an applicant must hold a baccalaureate degree from a regionally accredited U.S. institution or a tertiary degree that is deemed to be comparable to a 4-year's bachelor's degree from a regionally accredited U.S. institution.

Qualified applicants should have successfully completed an undergraduate or graduate-level course in statistics or show significant experience using statistics in a professional capacity.

Applications will be submitted online and will include:

1. Official transcripts from each institution attended.
2. GPA and Test Scores - A GPA of 3.0 or higher on a 4.0 scale in undergraduate studies is required. GRE or GMAT are not required but could be submitted (if completed) on the student's behalf.

Eligibility requirement: To be awarded a Certificate of Advanced Study (CAS), a student must be matriculated in the certificate program for at least one semester. Matriculation may not be backdated.

Transfer Credit

The Certificate of Advanced Study in Sport Analytics does not accept transfer credit.

Part-Time Study

Given the sequential nature of the courses and the timing of course offerings, part-time study is highly discouraged.

Satisfactory Progress

Graduate students must earn a minimum average of 3.0 for work comprising the program for the degree or certificate and a minimum cumulative GPA of 2.8.

Total Credits Required

12 credits

Student Learning Outcomes

1. Explain the different types of statistics used for analysis of player/team performance and business performance across different sports and leagues.
2. Demonstrate proficiency in the visualization of sport analytics data on both the player/team performance-side and business-side of the industry.
3. Integrate the knowledge and skills of effectively coding in R and Python to scrape, clean, and analyze data for sport organizations.
4. Develop critical thinking and model building skills in both econometrics and machine learning for careers in sport analytics.

Required Courses (12 Credits)

Courses must be completed sequentially and must be passed with a 3.0 (B) grade or higher in order to move onto the next course. If a student misses a course, they must take that course, the next time it is offered, before taking any subsequent courses in the program.

Code	Title	Credits
SAL 601	Introduction to Sport Analytics and Visualization	3
SAL 602	Introduction to R for Sport Analytics	3
SAL 603	Introduction to Databases and Python for Sport Analytics	3
SAL 604	Linear Regression and Econometrics for Sport Analytics	3
Total Credits		**12**