

BACHELOR OF ARTS (BA) DEGREE WITH A MAJOR IN SPORT ANALYTICS

Program Learning Outcomes for the BA Degree with a Major in Sport Analytics

Upon completing the BA Degree with a major in Sport Analytics, students will be able to:

1. Analyze data using statistical analysis, data mining, visualization, predictive analytics, and machine learning.
2. Communicate sport analytics, statistics, and data science results effectively to a non-technical audience (written, verbal, graphics).
3. Develop computer programming skills to be able to extract, scrape, manage, and parse data for use in statistical analyses.
4. Identify and understand how to apply the various skills, roles, and functions of the different areas in the sport management industry.

Requirements for the BA Degree with a Major in Sport Analytics

For general university requirements, see [Graduation Requirements \(https://ga.rice.edu/undergraduate-students/academic-policies-procedures/graduation-requirements/\)](https://ga.rice.edu/undergraduate-students/academic-policies-procedures/graduation-requirements/). Students pursuing the BA degree with a major in Sport Analytics must complete:

- A minimum of 15 courses (46-48 credit hours, depending on course selection) to satisfy major requirements.
- A minimum of 120 hours to satisfy degree requirements.
- A minimum of 10 courses (31-32 credit hours, depending on course selection) taken at the 300-level or above.
- A maximum of 6 courses (18 credit hours) from study abroad or transfer credit **after** matriculation at Rice may be applied towards specific major requirements. For additional departmental guidelines regarding transfer credit, see the [Policies](#) (p. 2) tab.

The courses listed below satisfy the requirements for this major. In certain instances, courses not on this official list may be substituted upon approval of the major's academic advisor or, where applicable, the department's Director of Undergraduate Studies. (Course substitutions must be formally applied and entered into Degree Works by the major's Official Certifier (<https://registrar.rice.edu/facstaff/degreeworks/officialcertifier/>)). Students and their academic advisors should identify and clearly document the courses to be taken.

Summary

Code	Title	Credit Hours
Total Credit Hours Required for the Major in Sport Analytics		46-48
Total Credit Hours Required for the BA Degree with a Major in Sport Analytics		120

Degree Requirements

Code	Title	Credit Hours
Core Requirements		
COMP 140 or DSCI 101	COMPUTATIONAL THINKING INTRODUCTION TO DATA SCIENCE	3-4
Select 1 course from the following:		3-4
BUSI 395	DATA ANALYTICS	
DSCI 301 / STAT 315	PROBABILITY AND STATISTICS FOR DATA SCIENCE	
STAT 310 / ECON 307	PROBABILITY AND STATISTICS	
Select 1 course from the following:		3
COMP 330	TOOLS AND MODELS FOR DATA SCIENCE	
COMP 430	INTRODUCTION TO DATABASE SYSTEMS	
DSCI 302	INTRODUCTION TO DATA SCIENCE TOOLS AND MODELS	
Select 1 course from the following:		3
COMP 341	PRACTICAL MACHINE LEARNING FOR REAL WORLD APPLICATIONS	
DSCI 303	MACHINE LEARNING FOR DATA SCIENCE	
ELEC 478	INTRODUCTION TO MACHINE LEARNING	
STAT 413	INTRODUCTION TO STATISTICAL MACHINE LEARNING	
MATH 101 or MATH 105	SINGLE VARIABLE CALCULUS I ¹ AP/OTH CREDIT IN CALCULUS I	3
MATH 102 or MATH 106	SINGLE VARIABLE CALCULUS II ¹ AP/OTH CREDIT IN CALCULUS II	3
SMGT 260	INTRODUCTION TO SPORT MANAGEMENT	3
SMGT 276	SPORT MANAGEMENT PRACTICUM	3
SMGT 373	SPORT ANALYTICS INTERNSHIP 1	3
SMGT 430	INTRODUCTION TO SPORT ANALYTICS	3
SMGT 431	ADVANCED SPORT ANALYTICS	3
SMGT 432 or SMGT 435	SOCCER ANALYTICS BASEBALL ANALYTICS	3
STAT 405	R FOR DATA SCIENCE	3
STAT 410	LINEAR REGRESSION	4
Capstone Requirement		
SMGT 490	SEMINAR IN SPORTS ANALYTICS	3
Total Credit Hours Required for the Major in Sport Analytics		46-48
Additional Credit Hours to Complete Degree Requirements *		41-43
University Graduation Requirements (https://ga.rice.edu/undergraduate-students/academic-policies-procedures/graduation-requirements/) *		31
Total Credit Hours		120

Footnotes and Additional Information

* **Note:** University Graduation Requirements include 31 credit hours, comprised of Distribution Requirements (Groups I, II, and III), FWIS, and LPAP coursework. In some instances, courses satisfying FWIS or distribution requirements may additionally meet other requirements, such as the Analyzing Diversity (AD) requirement, or some of the student's declared major, minor, or certificate requirements. Additional Credit Hours to Complete Degree Requirements include general electives, coursework completed as upper-level, residency (hours taken at Rice), and/or any other additional academic program requirements.

¹ Students may substitute a higher-level MATH course for the MATH 101 and/or MATH 102 requirements.

Policies for the BA Degree with a Major in Sport Analytics

Transfer Credit

For Rice University's policy regarding transfer credit, see Transfer Credit (<https://ga.rice.edu/undergraduate-students/academic-policies-procedures/transfer-credit/>). Some departments and programs have additional restrictions on transfer credit. Requests for transfer credit must be approved for Rice equivalency by the designated transfer credit advisor for the appropriate academic department offering the Rice equivalent course (corresponding to the subject code of the course content). The Office of Academic Advising maintains the university's official list of transfer credit advisors (<https://oaa.rice.edu/advising-network/transfer-credit-advisors/>) on their website: <https://oaa.rice.edu>. Students are encouraged to meet with the applicable transfer credit advisor as well as their academic program director when considering transfer credit possibilities.

Program Transfer Credit Guidelines

Students pursuing the major in Sport Analytics should be aware of the following program-specific transfer credit guidelines:

- No more than 6 courses (and a maximum of 18 credit hours) of transfer credit from U.S. or international universities of similar standing as Rice may apply towards specific major requirements **after** matriculation at Rice.
- Students seeking transfer credit should contact the appropriate department with requests for approval (i.e. transfer credit requests for STAT courses must be approved as equivalent by the Statistics department).

Please Note: Additional transfer courses may count toward meeting university graduation requirements, but not toward fulfillment of requirements for the major. Credits awarded to transfer students for courses taken prior to matriculation at Rice are not counted against the departmental limit on transfer courses, but all students must complete more than half of their upper-level major coursework (300-level and 400-level courses) at Rice.

Additional Information

For additional information, please see the Sport Analytics website: <https://sport.rice.edu/>.

Opportunities for the BA Degree with a Major in Sport Analytics

Academic Honors

The university recognizes academic excellence achieved over an undergraduate's academic history at Rice. For information on university honors, please see Latin Honors (<https://ga.rice.edu/undergraduate-students/honors-distinctions/university/>) (*summa cum laude*, *magna cum laude*, and *cum laude*) and Distinction in Research and Creative Work (<https://ga.rice.edu/undergraduate-students/honors-distinctions/university/>). Some departments have department-specific Honors awards or designations.

Additional Information

For additional information, please see the Sport Analytics website: <https://sport.rice.edu/>.