George Mason University
College of Education and Human Development
School of Recreation, Health, and Tourism

SRST 598 (DL1) – Analytics and Sport
3 Credits, Fall 2016
Online

Faculty

Name:	Christopher Atwater
Office hours:	12:00-2:00 pm - Wednesdays
Office location:	PW – Bull Run Hall - 223
Cell phone:	(202) 500-6279
Office phone	(703) 993-7608
Email address	catwater@gmu.edu

Prerequisites/Corequisites

Graduate standing.

University Catalog Course Description

This course will discuss the theories, concepts and development of analytics in sports today. Students will discuss and analyze the methods of sport analytic topics in today's industry, such as player performance, player management, sports data strategies, team management, game day operations and strategies, etc. Additionally, students will gather insight of how these aspects and more affect today's sport analytics.

Professional Association Standards

Courses offered in the Sport and Recreation Studies (SRST) graduate program are guided by the principles of the Commission of Sport Management Accreditation (COSMA). COSMA (2010, p. 1) "bases its accrediting process on principles, rather than standards." The eight recommended principles are:

- outcomes assessment;
- strategic planning;
- curriculum;
- faculty;
- scholarly and professional activities;
- resources;
- internal and external relationships; and
- educational innovation.

For more information, please see:

Commission of Sport Management Accreditation. (2010, June). *Accreditation principles and self study preparation*. Retrieved November 23, 2013 from http://cosmaweb.org/accredmanuals

Course Overview

This course prepares students to gain an appreciation and knowledge of sport analytics today, while analyzing the strategies and concepts that are apparent within today's industry. Specifically, students will:

- Identify the different concepts and aspects that are apparent in today's sport analytics.
- Interpret and analyze the important characteristics and aspects within the sport analytic industry today, i.e. player data, comparison of sports data, player tracking, probability, etc.
- Identify and analyze the significance of today's sport analytics through the use of technology features and

innovations.
- Discuss and analyze the differences of data in today's sport analytics, while understanding the aspects and strategies toward players, coaches, organizations, etc.

Course Delivery Method

This course will be delivered online using an asynchronous format via the Blackboard learning management system (LMS) housed in the MyMason portal. You will log in to the Blackboard course site using your Mason email name (everything before "@masonlive.gmu.edu) and email password. The course site will be available online August 28, 2016 at midnight.

Technical Requirements

To participate in this course, students will need to satisfy the following technical requirements:
- High-speed Internet access with a standard up-to-date browser, either Internet Explorer or Mozilla Firefox is required (note: Opera and Safari are not compatible with Blackboard).
- Students must maintain consistent and reliable access to their GMU email and Blackboard, as these are the official methods of communication for this course.
- Students may be asked to create logins and passwords on supplemental websites and/or to download trial software to their computer or tablet as part of course requirements.

Expectations
- Course Week:
  Because asynchronous courses do not have a "fixed" meeting day, our week will start on Monday morning (midnight), and finish on Sunday night at 11:59 p.m.
- Log-in Frequency:
  Students must actively check the course Blackboard site and their GMU email for communications from the instructor, class discussions, and/or access to course materials at least five times per week.
- Participation: Students are expected to actively engage in all course activities throughout the semester, which includes viewing all course materials, completing course activities and assignments, and participating in course discussions and group interactions.
- Technical Competence: Students are expected to demonstrate competence in the use of all course technology. Students who are struggling with technical components of the course are expected to seek assistance from the instructor and/or College or University technical services.
- Technical Issues: Students should anticipate some technical difficulties during the semester and should, therefore, budget their time accordingly. Late work will not be accepted based on individual technical issues.
- Workload: Please be aware that this course is **not** self-paced. Students are expected to meet *specific deadlines* and *due dates*. It is the student's responsibility to keep track of the weekly course schedule of topics, readings, activities and assignments due.
- Instructor Support: Students may schedule a one-on-one meeting to discuss course requirements, content or other course-related issues. Those unable to come to a Mason campus can meet with the instructor via telephone or web conference. Students should email the instructor to schedule a one-on-one session, including their preferred meeting method and suggested dates/times.
- Netiquette: The course environment is a collaborative space. Experience shows that even an innocent remark typed in the online environment can be misconstrued. Students must always re-read their responses carefully before posting them, so as others do not consider them as personal offenses. *Be positive in your approach with others and diplomatic in selecting your words.* Remember that you are not competing with classmates, but sharing information and learning from others. All faculty are similarly expected to be respectful in all communications.
- Accommodations: Online learners who require effective accommodations to insure accessibility must be registered with George Mason University Disability Services.

Learner Objectives

At the duration of the class, students should be able to:

1. Analyze the concepts and characteristics of analytics in sports today.
2. Successfully interpret the aspects within analytics in sport today, i.e. impact of analytics in sport, player data, player data points, performance data tracking, etc.
3. Comprehend and engage in critical thinking with the analytic topics in sports today, while analyzing the importance of these aspects toward players, coaches, teams, etc.
4. Obtain a unique perspective of the growing trend and field of sport analytics, while recognizing the reasons for doing so within sports today.
5. Absorb and gather insight on the strategies and concepts being used today to evaluate player/team performance related to sports analytics.
6. Comprehend and effectively analyze the different trends of sports analytics today, while assessing the outcomes and concepts of the impact within the sports analytics field.

Required Texts

Severini, Thomas (2014). *Analytic Methods in Sports: Using Mathematics and Statistics to Understand Data from Baseball, Football, Basketball, and Other Sports*. Boca Raton, FL: CRC Press.

Course Performance Evaluation

Students are expected to submit all assignments on time in the manner outlined by the instructor (e.g., Blackboard, Tk20, hard copy).

Assignments and Examinations	% of Grade
Online Quizzes: Students are required to complete online quizzes demonstrating knowledge gained through readings – Instructions Provided.	20
Sport Analytics Proposal and Individual Project: Students will select an issue related to their field of interest and determine a series of research questions that can be approached through statistical analyses. Once topic is determined, students will create a comprehensive database to serve as the basis for their final individual project reports.	20
R: Students are required to learn the statistical platform R which is the industry standard in relation to sport analytics and comprises the most important element of the course. Students will use the textbook in conjunction with R as well as developed datasets to demonstrate comprehension and techniques learned throughout the course	30
Individual Project Report: Students are required to complete a written and graphical report on their project of choice. This report shall be a concise description of the research questions generated and more importantly results and recommendations. Additionally, students will create a 10-15 minute video to share with the class demonstrating the utility of their project and potential impact of their findings.	30
Total	100

Grading Policies

A	= 94 – 97	B+	= 88 – 89	C	= 74 – 79
A-	= 90 – 93	B	= 84 – 87	F	= 0 – 73
		B-	= 80 – 83		

Professional Dispositions

Students are expected to exhibit professional behaviors and dispositions at all times.

Core Values Commitment

The College of Education and Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles: http://cehd.gmu.edu/values/.

GMU Policies and Resources for Students

Policies

• Students must adhere to the guidelines of the Mason Honor Code (see http://oai.gmu.edu/the-mason-honor-code/).

• Students must follow the university policy for Responsible Use of Computing (see http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/).

• Students are responsible for the content of university communications sent to their Mason email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students **solely** through their Mason email account.

• Students with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (see http://ods.gmu.edu/).

• Students must follow the university policy stating that all sound emitting devices shall be silenced during class unless otherwise authorized by the instructor.

Campus Resources

• Support for submission of assignments to Tk20 should be directed to tk20help@gmu.edu or https://cehd.gmu.edu/api/tk20. Questions or concerns regarding use of Blackboard should be directed to http://coursessupport.gmu.edu/.

• The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing (see http://writingcenter.gmu.edu/).

- The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance (see http://caps.gmu.edu/).

- The George Mason University Office of Student Support staff helps students negotiate life situations by connecting them with appropriate campus and off-campus resources. Students in need of these services may contact the office by phone (703-993-5376). Concerned students, faculty and staff may also make a referral to express concern for the safety or well-being of a Mason student or the community by going to http://studentsupport.gmu.edu/, and the OSS staff will follow up with the student.

For additional information on the College of Education and Human Development, please visit our website https://cehd.gmu.edu/.

Class Schedule

Due to the flexible nature of the course, weekly requirements including readings, assignments and deadlines will be published the week prior. The schedule must remain open-ended to determine appropriate timing for new content as learners demonstrate comprehension and ability.