George Mason University
College of Education and Human Development
Sport and Recreation Studies

SRST 598.DL1 (Blackboard) – Special Topics: Analytics and Sport
3 Credits, Fall 2019
Online/Distance Learning -- Fairfax

Faculty

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Prerequisites/Corequisites

Graduate standing.

University Catalog Course Description

Focuses on projects related to sport and/or recreation studies. Offered by Recreation, Health & Tourism. May be repeated within the degree for a maximum 6 credits.

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 or an asynchronous format via Blackboard Learning Management system (LMS) housed in the MyMason portal. You will log in to the Blackboard (Bb)

course site using your Mason email name (everything before @masonlive.gmu.edu) and email password. The course site will be available on August 27.

Under no circumstances, may candidates/students participate in online class sessions (either by phone or Internet) while operating motor vehicles. Further, as expected in a face-to-face class meeting, such online participation requires undivided attention to course content and communication.

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 will need a headset microphone for use with the Blackboard Collaborate web conferencing tool. [Delete this sentence if not applicable.]
- 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.
- The following software plug-ins for PCs and Macs, respectively, are available for free download:
    - Adobe Acrobat Reader: https://get.adobe.com/reader/
    - Windows Media Player: https://windows.microsoft.com/en-us/windows/downloads/windows-media-player/
    - Apple Quick Time Player: www.apple.com/quicktime/download/

Expectations

- Course Week:
  Because asynchronous courses do not have a "fixed" meeting day, our week will start on Monday and finish on Sunday.
- 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 3 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* listed in the **Class Schedule** section of this syllabus. 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 chat session to discuss course requirements, content or other course-related issues through Blackboard. 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 Outcomes or 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

Professional Standards

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Courses offered in the Sport and Recreation Studies (SRST) graduate program are guided by the principles of COSMA. COSMA (2016, 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. (2016, May). *Accreditation principles manual & guidelines for self-study preparation*. Retrieved November 30, 2016 from http://www.cosmaweb.org/accreditation-manuals.html

Required Text

Severini, T. (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).

- **Assignments and/or Examinations**
  Case Studies - 20%
  Analytics and Technology in Sports Analysis-15%
  Player/Team Sports Analytical Research Analysis-15%
  Group Final Project (Creation of a Sport Analytic Product/Model)-20%
  Midterm Examination-10%
  Final Examination-10%
  Participation-10%

- **Grading**

Grade	Scale
A	94 – 100
A-	90 – 93
B+	88 – 89

B	84 – 87
B-	80 – 83
C	70- 79
F	0 – 69

Professional Dispositions

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

Class Schedule

Week	Topic	**Activity and Assignments**	Assigned Readings
August 26	Course logistics Impact of sports analytics today	Discussion 1	Chapter 1
September 3	Assignment requirements Introduction to Sports Analytics	Discussion 2	Chapter 1
September 9	Describing and Summarizing Sports Data Case Study 1 available	Discussion 3	Chapter 2
September 16	Probability and Sports Analytics	Discussion 4	Chapter 3
September 23	Technology and Sports Analytics Today Analytics and Technology in Sports Analysis Assignment available	Discussion 5	
September 30	Statistical Methods Player/Team Sports Analytical Research Analysis available	Practice Quiz 1 **Case study 1 due**	Chapter 4
October 9	Case Studies in Sports Analytics Today	Discussion 7	
October 14		**Midterm examination posted (due October 21)**	

October 21	Using Correlation to Detect Statistical Relationships Case Study 2 available	Mini-practice quiz	Chapter 5
October 28	Analyzing Big Data in Today's Sports Analytics	**Analytics and Technology in Sports Analysis Assignment due**	
November 4	Modeling Relationships Using Linear Regression	Discussion 10	Chapter 6
November 11	Trends and Strategies in Today's Sports Analytics; MIT Sloan Sports Conference Analysis	**Case study 2 due**	
November 18	Regression Models with Several Predictor Variables	Discussion 12	Chapter 7
November 25		**Analytical Research Analysis assignment due**	
December 2	The Past, Present and Future of Sports Analytics	Practice Quiz 3	
December 9		**Group Final Project due is due**	
December 12		**Final examination posted (due December 16)**	

Note: Faculty reserves the right to alter the schedule as necessary, with notification to students.

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 https://catalog.gmu.edu/policies/honor-code-system/).
- 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 https://ds.gmu.edu/).
- Students must silence all sound emitting devices 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/aero/tk20. Questions or concerns regarding use of Blackboard should be directed to http://coursessupport.gmu.edu/.
- For information on student support resources on campus, see https://ctfe.gmu.edu/teaching/student-support-resources-on-campus

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