Department of Management, Marketing and International Business
MGMT 5382 720 Advanced Sports Analytics
Summer 1 2023

Instructor: Dr. Robert McDermand, MA, MPA, MBA, EdD
Office: McGee Business 403QQ
Office Phone: 936-468-1791
Other Contact Information: 936-468-4103 (MM Department)

Course Time & Location: T/R 6:00-9:55pm Livestream
Office Hours: Available virtually upon request
Credits: 3
Email: mcdermanrd@sfasu.edu

Prerequisites: None

I. Course Description:

The Advanced Sports Analytics course is designed to equip students with advanced knowledge, skills, and insights into the application of analytics in the field of sports management. This course delves into the current trends and practices in sports analytics and explores how data-driven decision making can enhance strategic planning and management within sports organizations.

II. Intended Learning Outcomes/Goals/Objectives (Program/Student Learning Outcomes):

This objective of this course is to provide a comprehensive understanding of analytics in sports management, exploring contemporary issues and their analytics-based solutions. Students study advanced sports management theories, apply them to real-world scenarios, and develop skills in data collection, analysis, and interpretation specific to the sports industry. They learn to support strategic decision making through statistical models, predictive analytics, and visualization techniques. Ethical considerations of sports analytics are also covered.

Program Learning Outcomes:
Program learning outcomes define the knowledge, skills, and abilities students are expected to demonstrate upon completion of an academic program. These learning outcomes are regularly assessed to determine student learning and to evaluate overall program effectiveness. You may access the program learning outcomes for your major and particular courses in the Curriculum Management Handbook at http://www.sfasu.edu/academics/colleges/business/welcome/faculty-resources

Student Learning Outcomes:
1. Students will be able to identify advanced concepts of sports analytics and its related disciplines.
2. Students will be able to apply sports analytic concepts to the fields of professional, amateur, recreational, and collegiate sports.
3. Students will be able to demonstrate their knowledge of sports analytics concepts through examinations, course seminar discussions, case study assignments and a capstone team competition
4. Students will be able to apply and share their knowledge from this course into the career transition into the sports profession

III. Course Assignments, Activities, Instructional Strategies, use of Technology:

A variety of instructional activities will be used, including: case studies and articles, lectures, in-class exercises, group work, a group case competition, in-class discussions, videos, and demonstration.

IV. Evaluation and Assessments (Grading):

<table>
<thead>
<tr>
<th>COURSE ACTIVITY</th>
<th>POINTS</th>
<th>REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance and Participation Projects</td>
<td>30</td>
<td>Reflection assignments due before class on assigned readings or multimedia items</td>
</tr>
<tr>
<td>Reading and Lecture Quizzes</td>
<td>40</td>
<td>Four traditional quizzes covering reading and lecture definitions and material</td>
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<tr>
<td>Case Study Summaries</td>
<td>40</td>
<td>Individual case summaries due before the start of class on assigned dates</td>
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<tr>
<td>Case Study Group Analysis</td>
<td>40</td>
<td>In-class group case analyses</td>
</tr>
<tr>
<td>Analytics Projects</td>
<td>100</td>
<td>Four analytics projects to familiarize students with the application of data-informed decision making</td>
</tr>
<tr>
<td>National Collegiate Sports Analytics</td>
<td>50</td>
<td>Capstone team project where students will compete to present the best analytics project</td>
</tr>
<tr>
<td>Championship</td>
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<tr>
<td>Final Comprehensive Exam</td>
<td>100</td>
<td>Final Exam – Friday, June 30</td>
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<tr>
<td><strong>Total</strong></td>
<td>400</td>
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</tbody>
</table>

Revised 5/2023
V. Tentative Course Outline/Calendar:

<table>
<thead>
<tr>
<th>Date</th>
<th>Unit Topics Covered</th>
<th>Course Mode</th>
<th>Attendance &amp; Participation Projects</th>
<th>Case Analysis</th>
<th>Quizzes (due by midnight)</th>
<th>Assignments (Due prior to the start of class)</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 30</td>
<td>Course Introduction</td>
<td>Hybrid</td>
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<tr>
<td>June 1</td>
<td>Foundations of Analytics for Sports Managers</td>
<td>Hybrid</td>
<td>Davenport &amp; TEDxTalk</td>
<td>Case 1 – June 1</td>
<td>Quiz 1 – June 4</td>
<td>Advanced Google Analytics Certification – June 4</td>
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<tr>
<td>June 6</td>
<td>Data Visualization and Tableau</td>
<td>Asynchronous</td>
<td>Tableau Install and Practice</td>
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<tr>
<td>June 8</td>
<td>Data Visualization and Tableau</td>
<td>Hybrid</td>
<td>Texas Rangers Boost Attendance</td>
<td>Case 2 – June 8</td>
<td>Quiz 2 – June 11</td>
<td>Tableau Dashboard – June 11</td>
</tr>
<tr>
<td>June 13</td>
<td>Working with Quantitative Data in R</td>
<td>Asynchronous</td>
<td>R and R-Studio Install and Practice</td>
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<tr>
<td>June 15</td>
<td>Plotting Data in R</td>
<td>Hybrid</td>
<td>TBD</td>
<td>Case 3 – June 15</td>
<td>Quiz 3 – June 18</td>
<td>R Project – June 18</td>
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<tr>
<td>June 20</td>
<td>Data Driven Decision Making</td>
<td>Asynchronous</td>
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<tr>
<td>June 22</td>
<td>Natural Languages and Text Mining</td>
<td>Hybrid</td>
<td>TBD</td>
<td>Case 4 – June 22</td>
<td>Quiz 4 – June 25</td>
<td>Sentiment Analysis Project – June 25</td>
</tr>
<tr>
<td>June 27</td>
<td>Championship</td>
<td>Asynchronous</td>
<td>Championship Team Prep</td>
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<tr>
<td>June 29</td>
<td>Championship</td>
<td></td>
<td>National Collegiate Sports Analytics Championship - June 29</td>
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<tr>
<td>June 30</td>
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<td></td>
<td>Final Exam – Friday, June 30 by midnight</td>
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Instructor reserves the right to modify, change, emphasize, and/or de-emphasize any of the preceding proposed content topics. On average, this course will consist of two 225-minute lectures per week and roughly 4 hours of out-of-class case studies, quizzes, readings and assignments.

VI. Textbook:

**Required Textbook:**
- No textbook is required for this course.

**Reading Assignments**
- Reading assignments will be made throughout the semester and correspond to course units, topical issues in sports analytics, debates and lecture topics.
- **Additional recommended readings (articles, books, etc.) might be introduced throughout the course and will be posted whenever possible on D2L or handed out in class.**
VII. Course Evaluations:

Near the conclusion of each semester, students in the Rusche College of Business electronically evaluate courses taken within the college. Evaluation data is used for a variety of important purposes including: 1. Course and program improvement, planning, and accreditation; 2. Instruction evaluation purposes; and 3. Making decisions on faculty tenure, promotion, pay, and retention. As you evaluate this course, please be thoughtful, thorough, and accurate in completing the evaluation. Please know that the College of Business faculty is committed to excellence in teaching and continued improvement. Therefore, your response is critical!

In the Rusche College of Business, the course evaluation process has been simplified and is completed electronically through MySFA. Although the instructor will be able to view the names of students who complete the survey, all ratings and comments are confidential and anonymous, and will not be available to the instructor until after final grades are posted.

VIII. Student Ethics and Other Policy Information:

Attendance:
Student attendance and participation in this class is a personal matter and results from individual motivation and interest. However, when present in class, it is expected that you will remain until class is completed. Students who, for whatever reason, feel they cannot attend class are penalized by having attendance/participation point subtracted from their running total for each occasion that they are absent from class. If you know you must be absent from class and inform the instructor in advance for the chance that no penalty will be applied.

Students with Disabilities
In accordance with the "American Disabilities Act," an appropriate adjustment will be arranged for individuals with a disability that might prevent or eliminate them from participating in certain activities during the semester. It should be noted that students have an obligation to advise or disclose information to the instructor about their specific disability so that correct accommodation may be made. To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004/468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.

Academic Integrity
Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university polity on penalties for cheating and plagiarism.

Definition of Academic Dishonesty
Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one’s own work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one’s paper without giving the author due credit.

Please read the complete policy at http://catalog.sfasu.edu/content.php?catoid=2&navoid=78#academic-integrity

Withheld Grades Semester Grades Policy (A-54)
Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances.

Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

Acceptable Student Behavior
Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program (see the Student Conduct Code, policy D-34.1). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is

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appropriate/inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the Early Alert Program. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed.

IX. Other Relevant Course Information:
1. In order to provide and maintain a clean learning environment, it is the policy of the university that no open beverages, food, or tobacco are permitted in instructional areas.
2. Student attendance and participation in this class is a personal matter and results from individual motivation and interest. However, when present in class, it is expected that you will remain until class is completed. Students who, for whatever reason, feel they must leave class will be penalized by having ONE (1) test point subtracted from their total test score for each occasion that they absent themselves from class. If you know you must leave class and inform the instructor in advance no penalty will be applied.
3. Cell phones must be turned off and remain off during class time. Students text messaging, receiving, making, or interrupting class with their phones will be penalized by having ONE (1) test point subtracted from their total test score on each occasion that these types of events occur.