

Master of Science in Sustainability Management

SUMA PS5225 Sustainability in Sports: Theory and Practice

Scheduled Meeting Times: TBD

Number of Credits (3)

Elective

Instructor: Bill Squires, Lecturer, 201-951-2867, ws2234@columbia.edu
Office Hours: By appointment between 9 am - 9 pm, 7 days a week.
Response Policy: I will respond as soon as possible, but certainly within 24 hours. Please text or call me with important updates/issues.

Instructor: Shaun A. Hoyte, Lecturer, sah2201@columbia.edu
Office Hours: By appointment
Response Policy: I generally respond within a day, but on the weekend or when I travel, I am not always able to respond in that time frame. Please plan ahead when making requests.

Facilitator/Teaching Assistant: TBD

Office Hours: TBD

Response Policy: TBD

Course Overview

The global sports industry is substantial, encompassing various aspects such as sporting events, merchandise, broadcasting, and more. In 2022, the industry's revenue amounted to nearly \$487 billion. By 2027, the global sports market is expected to surpass \$623 billion.¹ However, the influence of sports extends far beyond the field. Fans are both dedicated and passionate supporters who contribute to the industry's success and have a massive following across continents. From local matches to international tournaments, fans engage through attendance, viewership, merchandise purchases, social media interactions, and so much more.

As the market continues to grow, the sports industry has made significant progress toward embracing sustainability practices. Brands are increasingly transparent about their sustainability efforts, businesses are looking to partner with sustainability-focused organizations that have reputable certifications and initiatives, real estate developers and investors are designing environmentally friendly facilities, and athletes and their fan bases are demanding climate action, just to name a few. Despite some progress, there's ample room for growth within emerging sustainability practices in sports. Continued innovation can lead to eco-friendly materials, sustainable event management, ensuring sustainability across supply chains, and greening stadiums, venues, and event infrastructure, which can further minimize resource consumption and pollution and contribute to a healthier planet.

This course introduces the concept of sustainability and its relevance to the sports industry. It examines the environmental, social, and economic impacts of sports activities, events, and organizations and explores the strategies and practices that can enhance the sustainability performance of the sports sector. The course covers topics such as the definitions and dimensions of sustainability and how they relate to sports; the drivers and challenges of

¹ *Global sports market revenue 2027* | Statista. (2023, July 13). Statista.
<https://www.statista.com/statistics/370560/worldwide-sports-market-revenue/>

sustainability in sports (climate change, stakeholder expectations, governance, and innovation); frameworks and tools for assessing and reporting on sustainability in sports; best practices and case studies of sustainability in sports; and opportunities and benefits of sustainability in sports (fan engagement, athlete activism, business development, and social impact).

This course will be structured in the following main sections: Direct Impact & Current Activities, Evaluating Opportunities for Growth, and Expanding Reach Beyond Sports Venues. The course combines theoretical and practical learning with lectures, readings, discussions, assignments, site visit(s), and guest speakers. The course also includes group projects, where students will design and present a sustainability plan for a sports organization of their choice. The goals of the course are to equip students with the knowledge and skills to analyze and evaluate the sustainability performance of sports venues, activities, events, and mega sporting events (Olympics, FIFA World Cup, etc.), and organizations; inspire students to develop and implement sustainability strategies and practices that can improve the sustainability performance of the sports industry and create positive change in society; and foster students' interest in a career as leaders and advocates of sustainability in the sports industry.

This course is an elective and will be open, space permitting, to Sports Management, Sustainability Management, and Climate School students. The course will be offered in person, and we will meet once a week for one entire semester. There are no prerequisites to take this course.

Learning Objectives

Upon successfully completing this course, students will be able to:

- LO1: Assess the environmental, economic, and social impacts of global sustainable practices (i.e., energy efficiency, resource management, sustainable supply chain, etc.) in the sports industry and mega sporting events.
- LO2: Examine existing frameworks to integrate sustainable principles into business practices.
- LO3: Develop scorecards that measure the impact (financial, operations, investment) of sustainability initiatives in the sports industry.
- LO4: Analyze current operational practices in professional sports leagues and mega sporting events in real-time.
- LO5: Create a written and verbal recommendation for sustainability practices for future mega sporting events.

Readings

Reading will be posted to Canvas in weekly folders in the files section.

Dingle, G., & Mallen, C. (2022). *Sport and Environmental Sustainability: Research and Strategic Management*. Routledge. (pp. 1-289) 289 pages. [Textbook]

Required Readings

4 ways sport is winning on Sustainability. World Economic Forum. (n.d.). (pp.1-10) 10 pages
<https://www.weforum.org/agenda/2019/11/sustainable-sport-olympics-showjumping-zero-waste-superbowl/>

Coliseum. (2022a, January 3). *Me engineers inside look into Climate pledge arena*. (pp. 1-6) 6 pages
<https://www.coliseum-online.com/me-engineers-inside-look-into-climate-pledge-arena/>

Environmental matters in sport: Sustainable research in the ... (n.d.-b), (pp. 5-12) 8 pages.
<https://www.tandfonline.com/doi/full/10.1080/16184742.2022.2159482>

Food waste diversion and compostable ... (n.d.-c).(pp.1-10) 10 pages
https://greensportsalliance.org/wp-content/uploads/2022/08/2022_FINAL_GSA-Food-Diversion-Playbook.pdf

Hawks' playoff game on May 30 at State Farm Arena recognised as first true certified sporting event. Sports Venue Business (SVB). (2021, June 15). (pp. 1-5) 5 pages
https://sportsvenuebusiness.com/2021/06/15/hawks-playoff-game-on-may-30-at-state-farm-arena-recognised-as-first-true-certified-sporting-event/?ct=t%28Sports_Venue_Business_News%29

Jenkins, S. (2022, June 15). *How the sports industry can save money-and the planet.* Sportico.com. (pp. 1-7) 7 pages.
<https://www.sportico.com/personalities/executives/2022/sports-industry-save-money-planet-going-green-1234678447/>

Mabon, L. (2022). Football and climate change: What do we know, and what is needed for an evidence-informed response? *Climate Policy*, 23(3), (pp. 314–328) 14 pages. <https://doi.org/10.1080/14693062.2022.2147895>

Mallen, C., Dingle, G., & McRoberts, S. (2023). Climate impacts in sport: Extreme heat as a climate hazard and adaptation options. *Managing Sport and Leisure*, (pp. 1–18) 18 pages.
<https://doi.org/10.1080/23750472.2023.2166574>

McCormick, B. (2023b, April 17). *ASM global sets sustainability targets for its worldwide venues starting as soon as 2025.* ASM Global sets sustainability targets for its worldwide venues. (pp. 1-4) 4 pages.
<https://www.sportsbusinessjournal.com/Journal/Issues/2023/04/17/Portfolio/facilities.aspx>

McDonald, K., Stewart, B., & Dingle, G. (2014). Managing multi-purpose leisure facilities in a time of climate change. *Managing Leisure*, 19(3), (pp. 212–225) 14 pages. <https://doi.org/10.1080/13606719.2014.885719>

Orr, M., Murfree, J., & Stargel, L. (2022). (Re)scheduling as a climate mitigation and adaptation strategy. *Managing Sport and Leisure*, (pp. 1–6) 6 pages. <https://doi.org/10.1080/23750472.2022.2159501>

Ross, W. J., & Leopkey, B. (2017). The adoption and evolution of environmental practices in the Olympic Games. *Managing Sport and Leisure*, 22(1), (pp. 1–18) 18 pages. <https://doi.org/10.1080/23750472.2017.1326291>

Ross, W. J., & Orr, M. (2021). Predicting climate impacts to the Olympic Games and FIFA Men's World Cups from 2022 to 2032. *Sport in Society*, 25(4), (pp. 867–888) 22 pages. <https://doi.org/10.1080/17430437.2021.1984426>

Sports Business Journal. (2022, April 4). *Sustainability in sports.* Sports Business Journal.(pp. 1-1) 1 page.
<https://www.sportsbusinessjournal.com/Journal/Issues/2022/04/04/In-Depth/Sustainability-in-Sports.aspx>

Wethal, T. (2023, February 27). *London Stadium to generate power via solar panels starting 2024.* Athletic Business.(pp.1-4)4 pages.
https://www.athleticbusiness.com/facilities/stadium-arena/article/15307383/london-stadium-to-generate-power-via-solar-panels-starting-2024?utm_source=Newsletter&utm_medium=email&utm_campaign=ATHLCD230227003&utm_term=&oly_enc_id=1683F6201356C1V

Yang, H. (2023, July 26). *Sustainability in sport events: Environmental, Economic & Social.* AISTS. (pp. 1-7) 7 pages. <https://aists.org/sustainability-in-sport-events/>

Suggested Readings

Coliseum. (2022b, April 28). *State Farm Arena “true” to its green goals*. (pp. 1-3) 3 pages
<https://www.coliseum-online.com/state-farm-arena-true-to-its-green-goals/>

Gri, SASB, CDP – making sense of overlapping sustainability and climate disclosures. Nordea. (n.d.).(pp.1-6) 6 pages.
<https://www.nordea.com/en/news/gri-sasb-cdp-making-sense-of-overlapping-sustainability-and-climate-disclosures>

McCormick, B. (2023a, April 3). *Sustainability: Transportation’s impact on the carbon footprint of sports venues is driving renewed focus on public transit*. Sports Business Journal. (pp. 1-7) 7 pages.
<https://www.sportsbusinessjournal.com/Journal/Issues/2023/04/03/In-Depth/sustainability.aspx>

Additional Resources

All sports are water sports - gsa water playbook. (n.d.-a). (pp.1-76) 76 pages
<https://greensportsalliance.org/wp-content/uploads/2023/06/All-Sports-Are-Water-Sports-GSA-Water-Playbook-online.pdf>

Benchmark Report Download our report. APTIM. (2024, January 3), (pp.1-76) 76 pages.
<https://www.aptim.com/services/environmental-and-sustainability-solutions/sustainability-solutions/sustainable-sports-index/download-our-report/>

Building for the Next Generation Playbook. Green Sports Alliance. (n.d.-d).
<https://greensportsalliance.org/wp-content/uploads/2023/08/Building-for-the-Next-Generation-Playbook-online.pdf>

Green Sports Alliance: Food Waste Diversion and Compostable Packaging Playbook.
https://greensportsalliance.org/wp-content/uploads/2022/08/2022_FINAL_GSA-Food-Diversion-Playbook.pdf. (pp. 3-21) 19 pages.

Now is the time for change and action. Global Sustainable Sport. (n.d.). [Newsletter]
<https://www.globalsustainablesport.com/> <https://www.globalsustainablesport.com>

The instructor of the course recommends that students subscribe to the newsletter for the duration of the course. This will allow Students to stay up to date on the latest news and innovations in global sustainability in sports.

Assignments and Assessments

This course blends individual and group work, challenging students to tackle real-world sustainability issues. The course workload consists of three written assignments, a midterm, two informational interviews, a final report with presentation, two discussion posts, and regular class participation and attendance. Additional details and instructions for each assignment will be provided within the Assignments section on Canvas. Be sure to check Canvas regularly for updates and deadlines.

Assignment 1 (Individual) - 5% – Green Building Certifications (LO1, LO2, LO3)

Research and report on the various Green Building Certifications. Develop a certification and justify your standards. Green Building Certifications offer frameworks for designing, constructing, and operating sustainable structures.

This assignment delves into these certifications, allowing you to critically evaluate their merits and propose your own contribution to the field.

Task:

This assignment involves researching 4-5 prominent certifications (LEED, Energy Star, etc.). Analyze their focus, scoring, audience, strengths, and weaknesses in a comparative matrix/table. Identify standard best practices and potential gaps in existing schemes. Design your own certification, defining its emphasis, evaluation criteria, target audience, and unique features. Finally, justify your choices, explaining why you addressed specific aspects and implemented your chosen approach. Explain why you address specific sustainability aspects, how your scoring system works, and the rationale behind your target audience and unique features. Additional details and instructions for this assignment will be provided within the Assignments section on Canvas. Be sure to check Canvas regularly for updates and deadlines.

Deliverables: A report (3-5 pages single-spaced) with clear sections addressing each task component that includes:

- A well-formatted matrix/table comparing and contrasting the elements of existing certifications.
- A detailed description of your proposed Green Building Certification, including justification and rationale.
- All sources are cited in a consistent format (e.g., APA, MLA).

Grading:

- Qualitative analysis of existing certifications.
- Identification of best practices and gaps.
- Content and clarity of your proposed certification.
- Justifications and rationale for your design choices.
- Clarity, organization, and proper citation of sources.
- Grammar and spelling.

Assignment 2 (Individual) - 10% – Mega-Events and Sustainability (LO1, LO2, LO4, LO5)

Critically analyze and propose solutions for improving sustainability efforts in mega-events like World Cups, Olympics, Super Bowls, and F1 races. The excitement and global impact of mega-events are undeniable. However, their environmental and social footprint can be significant. This assignment asks you to dive into the sustainability challenges and opportunities surrounding these large-scale gatherings.

Task:

This assignment challenges you to become a sustainability expert for a mega-event like the Olympics or Super Bowl. Choose one event, then deep-dive into its past, present, and future sustainability efforts using diverse resources like official websites, research, and even documentaries. Analyze its environmental and social impact and propose recommendations for improvement. Think critically, justify your ideas, and envision a more sustainable future for these large-scale gatherings. Additional details and instructions for this assignment will be provided within the Assignments section on Canvas. Be sure to check Canvas regularly for updates and deadlines.

Deliverables: Evaluation Report: Submit a well-structured report (3-5 pages single-spaced) that includes:

- Analysis of the event's sustainability impact and implementation strategy.
- A summary of the event's current plan.
- A detailed description of gaps identified and proposed solutions to address them, including justification and rationale.
- All sources are cited in a consistent format (e.g., APA, MLA).

Grading:

- Critical analysis of the chosen event's sustainability efforts.
- Identification of best practices and gaps.
- Clarity, feasibility, and impact of your recommendations
- Clarity, organization, and proper citation of sources.
- Critical thinking and justification of your arguments
- Grammar and spelling

Midterm (Group) - 20% – Environmental Scorecard Framework (LO1, LO3, LO4, LO5)

The objective of this assignment is to design an environmental scorecard that evaluates the sustainability practices of a sports facility (e.g., stadium, gym, arena, etc.). Students will quantify various environmental aspects and propose improvement strategies.

Assignment Details:**1. Components of the Scorecard:**

- **Energy Efficiency:** Assess the facility's energy consumption. Consider lighting, HVAC systems, and renewable energy sources.
- **Water Conservation:** Evaluate water usage, rainwater harvesting, and wastewater management.
- **Waste Management:** Analyze waste diversion rates, recycling efforts, and composting.
- **Materials and Construction:** Consider sustainable building materials, eco-friendly paints, and low-impact construction.
- **Biodiversity and Green Spaces:** Assess the presence of green areas, native plants, and wildlife-friendly design.
- **Transportation:** Evaluate accessibility, public transport options, and bike facilities.
- **Indoor Air Quality:** Consider ventilation, air filtration, and use of non-toxic materials.
- **Legacy and Post-Event Use:** Explore plans for facility use after major events.

2. Quantitative Metrics:

- Students should assign numerical values or scores to each component. For example:
 - Energy Efficiency: Score from 1 to 10 based on energy-saving features.
 - Waste Management: Percentage of waste diverted from landfills.
 - Biodiversity: Number of native plant species.
 - Transportation: Accessibility rating (e.g., distance to public transit).

3. Weighting and Aggregation:

- Students should assign weights to each component based on its importance (e.g., energy efficiency might have a higher weight than indoor air quality) and be able to justify their decision.
- Aggregate the scores to calculate an overall environmental score for the facility.

4. Presentation Format:

- The assignment can be presented as an Excel spreadsheet or a visually appealing document.
- Each component should have a separate section with data, scores, and explanations.
- Include charts, graphs, and visuals to enhance clarity.

5. Discussion and Reflection:

- Students should reflect on the challenges and trade-offs of sustainable practices.
- Discuss the long-term impact of facility design decisions on the environment and community.

Example:

Here's a simplified example of how the scorecard might look (using arbitrary scores):

Table

Component	Score (out of 10)	Weight (%)
Energy Efficiency	8	20
Water Conservation	7	15
Waste Management	6	10
Biodiversity and Green Spaces	9	15
Transportation	5	10
Indoor Air Quality	8	10
Legacy and Post-Event Use	7	20
Total Score	7.2	

Deliverables: Evaluation Report: Submit a well-structured report (8-10 pages) that includes:

- Completed scorecard (in the format of an Excel file or Word document).
- Instructions on how to use the designed scorecard.
- Detailed explanation of the scorecard structure, justifying underlying principles, weighting, and prioritization of the scorecard components.
- Recommendations for performance improvement of the facility.

The goal is to create a practical tool that can be used to track progress and make informed decisions. Excel is a suitable format, but students can also use other tools if preferred.

Grading:

- Depth and relevance of the chosen organization
- Thorough application of the Environmental Scorecard framework
- Critical analysis of the organization's sustainability performance
- Actionable and well-supported recommendations
- Clarity, organization, and professionalism of report and presentation
- Grammar and spelling

Assignment 3 (Individual) - 10% – Sports Venue Site Visit & Evaluation (LO2, LO3, LO4)

Students will apply their Environmental Scorecard framework (midterm assignment) to a real-world case study by evaluating the sustainability efforts of the sports organization/venue.

Task:

Utilize your Environmental Scorecard Framework to systematically assess the host organization's performance across various sustainability parameters (energy efficiency, waste management, water conservation, social impact, etc.). Ahead of the visit, gather information on the host's website, reports, press releases, and other publicly available resources to gather relevant data on their sustainability initiatives. Based on your findings, formulate actionable recommendations for the sports organization to enhance its sustainability performance and address identified shortcomings. Additional details and instructions for this assignment will be provided within the Assignments section on Canvas. Be sure to check Canvas regularly for updates and deadlines.

Deliverables: Evaluation Report: Submit a well-structured report (3-5 pages) that includes:

- Quantitative analysis displaying a matrix/table that shows how the Environmental Scorecard framework from the Midterm Assignment was used to assess the organization's performance across various sustainability parameters.
- Qualitative evaluation of the organization's sustainability efforts.
- Clear and actionable recommendations for enhancing sustainability performance based on the scorecard results and qualitative analysis. Recommendations should include an estimate of investment costs and potential environmental benefits (e.g., if energy efficiency scores low, investment should be made in energy efficiency upgrades or solar panels).

Grading:

- Thorough application of the Environmental Scorecard framework.
- Critical analysis of the organization's sustainability performance.
- Actionable and well-supported recommendations.
- Clarity, organization, and professionalism of report and presentation.
- Grammar and spelling.

Informational Interview (Individual) - 5%

Students will conduct an informational interview with a professional who focuses on sustainability in sports. Ahead of the meeting, students will create questions specific to the industry professional. Through this conversation, students gain insightful perspectives and real-world experiences on the challenges and opportunities within this growing field.

Professionals in the sports industry with a focus on sustainability, including:

- Venue operators (stadiums, arenas, etc.)
- Mega Sporting Event Sustainability Directors
- Sustainability Consultants for sports organizations
- Nonprofit organizations focused on sports sustainability
- Government agencies involved in sports sustainability

Deliverable: Students will submit a 2-3 page document that includes the questions, reflection of the interview, and additional research on topics discussed during the meeting.

Grading:

- Students will be evaluated on the depth and clarity of their interview.
- Format of the document (sections include interview questions, responses, research of topics discussed, and a reflection of the interview).
- Grammar and spelling.

Final Project (Group) - 30% – Analysis of a Mega Sporting Event (e.g., 2026 World Cup Stadiums)

Students will analyze the sustainability efforts, practices, and plans for an upcoming mega sporting event. You will be assigned a specific stadium hosting the event, utilizing established sustainability scorecards, measuring the event against the United Nations Sports for Climate Action Framework, and providing constructive recommendations for improvement.

Assigned Stadium: (Assigned stadium will be provided here)

Deliverables:

- **Group Presentation:** A 15-20 minute presentation summarizing your findings and recommendations, including:
 - Overview of the assigned stadium and the mega sporting event it will host.
 - Analysis of the event's existing sustainability efforts, practices, and plans using relevant scorecards.
 - Assessment of the event's alignment with the UN Sports for Climate Action Framework across its five key areas: Energy, Climate, Resource Management, Mobility, and Awareness.
 - A set of clear and actionable recommendations for improving the event's sustainability performance.
 - Visual aids such as graphs, charts, and images to enhance your presentation.
- **Detailed Appendix:** A document containing the following:
 - Detailed analysis of the scorecard results, including strengths, weaknesses, and areas for improvement.
 - Supporting data and evidence for your recommendations.
 - References to all sources used in your research.

Grading:

- **Presentation:**
 - Clarity and organization of content.
 - Use of visuals and multimedia.
 - Delivery and presentation skills.
 - Depth and quality of analysis.
 - Demonstration and application of topics discussed throughout the semester
 - Grammar and spelling.

- **Appendix:**
 - Thoroughness and accuracy of scorecard analysis
 - Strength and justification of recommendations
 - Quality and relevance of supporting data

Group Work Guidelines:

- Each group member should actively participate in the research, analysis, and presentation preparation.
- Divide tasks effectively and ensure everyone contributes their expertise.
- Maintain clear communication and collaboration within the group.
- Respect diverse perspectives and encourage open discussion.

Discussion Posts (Individual) - 5% (two posts, 2.5% each)

Faculty will assign two discussion posts for students to explore relevant topics, share research, and create a research repository on sustainability in sports. Students are encouraged to respond to peers but not required.

More details about the specific topics, research expectations, and grading criteria will be posted on Canvas.

Each discussion post will require students to:

1. Conduct independent research: Explore the chosen topic using credible sources like academic journals, news articles, industry reports, and NGO websites.
2. Share your findings: Contribute to the discussion by:
 - Briefly introduce your research: In a concise format (e.g., short paragraph, bullet points), explain the key points you learned and why they're relevant.
 - Including relevant details: Support your points with evidence from your research, such as:
 - Statistics: Share relevant data to illustrate trends or impacts.
 - External links: Provide links to credible sources for further exploration.
 - Using multimedia: Enhance your contribution with visuals like graphs, images, or short videos (if appropriate).
 - Avoid duplicating topics and points made by peers.

Grading:

Your contributions will be evaluated based on:

- Relevance: Ensure your research and insights are directly linked to the discussion topic.
- Accuracy: Cite your sources correctly and use credible information.
- Depth: Offer a thoughtful analysis, not just superficial summaries.
- Conciseness: Communicate your points clearly and effectively within a reasonable format.
- Engagement: Foster active discussion by asking thought-provoking questions, responding to others, and offering different perspectives.
- Grammar and spelling.

Class Participation and Attendance (Individual) - 15%

Students are encouraged to actively engage through working together to collaborate and share ideas that may lead to innovative work. This course meets for only one session weekly, so attendance at each session is required. Therefore, students must be prepared for every class and should participate in each session. Attendance is not participation!

A guest speaker (Industry Professional) feedback form will be posted on Canvas. Students are expected to complete the form before the following class. The submission of the feedback forms will be considered in the participation grade.

Class Participation – Mandatory Faculty Call

A bio template will be sent to each student before the semester begins. Complete the bio and send it to the Lecturer and Course Associate. The Lecturer will then contact you to schedule a 20-30 minute ‘get to know you’ Zoom or phone call before the beginning of the semester. The Lecturer and student will learn a little about each other, discuss the course, and answer any questions.

A Final Note on Class Participation

The quality of participation, as reflected in the careful reading and thorough analysis of the assigned materials, is essential. It is also important to build upon other students’ comments. This requires attentive listening. Class participation will be judged based on its quality and consistency. In addition, the student’s participation grade will be negatively impacted by poor attendance; students will fail the course automatically (even if they can earn enough points on the assignments to pass the course otherwise) if their attendance is deemed poor by the Lecturer. Any unexcused absence(s) during the scheduled class time will result in a lower overall participation grade in the course. Students are encouraged to discuss the adequacy of their participation with the Lecturer and Course Associate.

Grading

The final grade will be calculated as described below:

FINAL GRADING SCALE

Grade	Percentage
A+	98–100 %
A	93–97.9 %
A-	90–92.9 %
B+	87–89.9 %
B	83–86.9 %
B-	80–82.9 %
C+	77–79.9 %
C	73–76.9 %
C-	70–72.9 %
D	60–69.9 %
F	59.9% and below

Assignment/Assessment	% Weight	Individual or Group/Team Grade
Written Assignments Assignment 1 - 5% Assignment 2 - 10% Assignment 3 - 10%	25	Individual Assignment
Midterm Assignment	20	Group Project (Midterm)
Informational Interview (1x)	5	Individual Assignment
Final Report and Presentation [mega-event evaluation]	30	Group Project (Final)
Discussion Posts (2 - 2.5% each)	5	Individual
Class Participation and Attendance	15	Individual

Course Schedule/Course Calendar

This is a 14 week course that includes a site visit to a sports venue.

Date	Topics and Activities	Readings (due on this day)	Assignments (due on this date)
Section I - Direct Impact & Current Activities			
Week 1	Course introductions Introduction to Sustainability Principles Sports Landscape	Dingle, G., & Mallen, C. (2022). Sport and Environmental Sustainability: Research and Strategic Management. Routledge. Chapters 1 (pp.1-13) 13 pages. https://clio.columbia.edu/catalog/14985372 [Link to be added when library reserves are created] Required Articles: Environmental matters in sport: Sustainable research in the ... (n.d.-b), https://www.tandfonline.com/doi/full/10.1080/16184742.2022.2159482 . (pp. 5-12) 6 pages.	Faculty call Getting to know you discussion post

		<p>Yang, H. (2023, July 26). <i>Sustainability in sport events: Environmental, Economic & Social</i>. AISTS. https://aists.org/sustainability-in-sport-events/. 5 pages.</p> <p><i>Additional timely industry readings will be added to the Canvas site</i></p>	
Week 2	<p>Relationship between climate change, the environment and the sports industry</p> <p>Climate Change - Impact on sports</p> <p>Sport Ecology</p>	<p>Dingle, G., & Mallen, C. (2022). Sport and Environmental Sustainability: Research and Strategic Management. Routledge. Chapters 2, 3, & 6 (pp. 17-31, 32-46, 107-125) 49 pages.</p> <p>Required Articles:</p> <p>Orr, M., Murfree, J., & Stargel, L. (2022). (Re)scheduling as a climate mitigation and adaptation strategy. <i>Managing Sport and Leisure</i>, https://doi.org/10.1080/13606719.2014.885711 . (pp. 1–6) 6 pages.</p> <p>McDonald, K., Stewart, B., & Dingle, G. (2014). Managing multi-purpose leisure facilities in a time of climate change. <i>Managing Leisure</i>, 19(3), https://doi.org/10.1080/13606719.2014.885719 (pp. 212–225) 13 pages.</p> <p>Mallen, C., Dingle, G., & McRoberts, S. (2023). Climate impacts in sport: Extreme heat as a climate hazard and adaptation options. <i>Managing Sport and Leisure</i>, https://www.tandfonline.com/doi/pdf/10.1080/23750472.2023.2166574?needAccess=true (pp. 1–14) 14 pages.</p> <p><i>Additional timely industry readings will be added to the Canvas site</i></p>	Discussion Post 1

Week 3	Sports Venue Infrastructure Design, Planning, & Construction	<p>Dingle, G., & Mallen, C. (2022). Sport and Environmental Sustainability: Research and Strategic Management. Routledge. Chapters 4 & 5 (pp. 47-85, 86-103) 57 pages.</p> <p>Required Articles:</p> <p>Sports Business Journal. (2022, April 4). <i>Sustainability in sports</i>. Sports Business Journal. https://www.sportsbusinessjournal.com/Journal/Issues/2022/04/04/In-Depth/Sustainability-in-Sports.aspx. 1 page.</p> <p>Coliseum. (2022a, January 3). <i>Me engineers inside look into Climate pledge arena</i>. https://www.coliseum-online.com/me-engineers-inside-look-into-climate-pledge-arena/. 4 pages</p> <p><i>Hawks' playoff game on May 30 at State Farm Arena recognised as first true certified sporting event</i>. Sports Venue Business (SVB). (2021, June 15). https://sportsvenuebusiness.com/2021/06/15/hawks-playoff-game-on-may-30-at-state-farm-arena-recognised-as-first-true-certified-sporting-event/?ct=t%28Sports_Venue_Business_News%29. 1 page.</p> <p>Suggested Articles:</p> <p>Coliseum. (2022b, April 28). <i>State Farm Arena "true" to its green goals</i>. https://www.coliseum-online.com/state-farm-arena-true-to-its-green-goals/. 2 pages</p> <p>McCormick, B. (2023a, April 3). <i>Sustainability: Transportation's impact on the carbon footprint of</i></p>	Discussion Post 2

		<p><i>sports venues is driving renewed focus on public transit.</i> Sports Business Journal. https://www.sportsbusinessjournal.com/Journal/Issues/2023/04/03/In-Depth/sustainability.aspx (pp. 1-7) 4 pages.</p> <p><i>Additional timely industry readings will be added to the Canvas site</i></p>	
Week 4	<p>Sports Venue Infrastructure continued - <i>Operations Management</i></p> <p>Energy, Water, & Waste Management</p> <p>Sustainable Supply Chain Management</p>	<p>Green Sports Alliance. Next Generation Playbook. https://greensportsalliance.org/wp-content/uploads/2023/08/Building-for-the-Next-Generation-Playbook-online.pdf. (6-43) 37 pages.</p> <p>All sports are water sports - GSA Water Playbook. https://greensportsalliance.org/wp-content/uploads/2023/06/All-Sports-Are-Water-Sports-GSA-Water-Playbook-online.pdf. (pp 5-29) 25 pages.</p> <p>Green Sports Alliance: Food Waste Diversion and Compostable Packaging Playbook. https://greensportsalliance.org/wp-content/uploads/2022/08/2022_FINAL_GSA-Food-Diversion-Playbook.pdf. (pp. 3-21) 19 pages.</p> <p>Required Articles:</p> <p>Wethal, T. (2023, February 27). <i>London Stadium to generate power via solar panels starting 2024.</i> Athletic Business. https://www.athleticbusiness.com/facilities/stadium-arena/article/15307383/london-stadium-to-generate-power-via-solar-panels-starting-2024?utm_source=Newsletter&utm_medium=email&utm_campaign=ATHLCD230227003&utm_term=&ol</p>	No assignments this week.

		<p>y_enc_id=1683F6201356C1V. 1 page.</p> <p><i>Additional timely industry readings will be added to the Canvas site</i></p>	
Week 5	<p>Events - planning & executing</p> <p>Mega vs. Regular Events</p> <p>Geographic considerations</p>	<p>Dingle, G., & Mallen, C. (2022). Sport and Environmental Sustainability: Research and Strategic Management. Routledge. Chapters 7 & 8 (pp. 126-139, 140-161) 36 pages.</p> <p>Required Articles:</p> <p>Ross, W. J., & Leopkey, B. (2017). The adoption and evolution of environmental practices in the Olympic Games. <i>Managing Sport and Leisure</i>, 22(1), https://doi.org/10.1080/23750472.2017.1326291. (pp. 1–18) 18 pages.</p> <p>Ross, W. J., & Orr, M. (2021). Predicting climate impacts to the Olympic Games and FIFA Men's World Cups from 2022 to 2032. <i>Sport in Society</i>, 25(4), https://doi.org/10.1080/17430437.2021.1984426. (pp. 867–888) 22 pages.</p> <p><i>Additional timely industry readings will be added to the Canvas site</i></p>	Assignment 1 – Green Building Certifications
Section II - Evaluating Opportunities for Growth			
Week 6	<p>Economic Drivers of Sustainability</p> <p>Industry Trends</p> <p>Market Evaluation</p> <p>Current Investments</p>	<p>Required Articles:</p> <p>Thormann, T. F., & Wicker, P. (2021). Willingness-to-Pay for environmental measures in Non-Profit sport clubs. <i>Sustainability</i>, 13(5), 2841. https://doi.org/10.3390/su13052841 (pp. 1-16) 16 pages</p>	Assignment 2 – Mega-Events and Sustainability

		<p>Mair, J., Chien, P. M., Kelly, S., & Derrington, S. (2021). Social impacts of mega-events: a systematic narrative review and research agenda. <i>Journal of Sustainable Tourism</i>, 31(2), https://doi.org/10.1080/09669582.2020.1870989. (pp. 538–560) 23 pages [<i>Have requested PDF copies from Columbia Libraries</i>]</p> <p><i>4 ways sport is winning on Sustainability.</i> World Economic Forum. (n.d.), https://www.weforum.org/agenda/2019/11/sustainable-sport-olympics-showjumping-zero-waste-superbowl/. 2 pages.</p> <p>Jenkins, S. (2022, June 15). <i>How the sports industry can save money-and the planet.</i> Sportico.com. https://www.sportico.com/personalities/executives/2022/sports-industry-save-money-planet-going-green-1234678447/. 2 pages.</p> <p><i>Additional timely industry readings will be added to the Canvas site</i></p>	
Week 7	<p>Economic Drivers of Sustainability - continued</p> <p>Policy & Regulation</p> <p>Sustainable Development</p>	<p>Dingle, G., & Mallen, C. (2022). <i>Sport and Environmental Sustainability: Research and Strategic Management.</i> Routledge. Chapters 9 & 11 (pp.165-182, 201-220) 38 pages.</p> <p>Required Articles:</p> <p>United Nations. (2016.). The role of sport in achieving the sustainable development goals United Nations. https://www.un.org/en/chronicle/article/role-sport-achieving-sustainable-development-goals (pp. 1-3) 3 pages</p>	<p>Midterm Assignment (Group) - Environmental Scorecard Framework</p>

		<i>Additional timely industry readings will be added to the Canvas site</i>	
Week 8	Tracking & Measuring Carbon emissions reporting & standards ESG metrics	Dingle, G., & Mallen, C. (2022). Sport and Environmental Sustainability: Research and Strategic Management. Routledge. Chapter 10 (pp. 183- 200) 18 pages. Required Articles: McCormick, B. (2023b, April 17). <i>ASM global sets sustainability targets for its worldwide venues starting as soon as 2025</i> . ASM Global sets sustainability targets for its worldwide venues, https://www.sportsbusinessjournal.com/Journal/Issues/2023/04/17/Portfolio/facilities.aspx 4 pages. Suggested Articles: Gri, SASB, CDP – <i>making sense of overlapping sustainability and climate disclosures</i> . Nordea. (n.d.). https://www.nordea.com/en/news/gri-sasb-cdp-making-sense-of-overlapping-sustainability-and-climate-disclosures . 4 pages. <i>Additional timely industry readings will be added to the Canvas site</i>	No assignment this week
Week 9	Site Visit	Research venue ahead of site visit. <i>Additional timely industry readings will be added to the Canvas site</i>	
Section III - Expanding Reach Beyond Sports Venues			
Week 10	Marketing, Partnerships, and Sponsorships Brand & Recognition	Dingle, G., & Mallen, C. (2022). Sport and Environmental Sustainability: Research and Strategic Management. Routledge. Chapters 11 & 12 (pp. 201- 220,	Assignment 3 (Individual) - Sports Venue Site Visit & Evaluation

		<p>221- 242) 42 pages.</p> <p>Required Articles:</p> <p>Mabon, L. (2022). Football and climate change: What do we know, and what is needed for an evidence-informed response? <i>Climate Policy</i>, 23(3), https://doi.org/10.1080/14693062.2022.2147895 (pp. 314–328) 12 Pages.</p> <p><i>Additional timely industry readings will be added to the Canvas site</i></p>	
Week 11	Environmental Communication	<p>Dingle, G., & Mallen, C. (2022). Sport and Environmental Sustainability: Research and Strategic Management. Routledge. (pp. 243-260) 18 pages.</p> <p>Required Articles:</p> <p>Lim, D., & Park, S. (2023). A study of Measures for Sustainable Sport. <i>Sustainability</i>, 15(17), 12732. https://doi.org/10.3390/su151712732 (pp. 1-12) 12 pages</p> <p>McCullough, B. P., Casper, J. M., & Smith, D. M. K. (2022). Fan responses of sponsored environmental sustainability initiatives. <i>Sustainability</i>, 14(21), 14062. https://doi.org/10.3390/su142114062 (pp. 1-14) 14 pages</p> <p><i>Additional timely industry readings will be added to the Canvas site</i></p>	No assignment this week
Week 12	Leveraging External Partnerships	<p>Required Articles:</p>	Informational Interview

	Sustainable Sports Organizations (i.e., Green Sports Alliance)	<p>The business benefits of sustainability partnerships. (2018, February 23). https://www.triplepundit.com/story/2018/business-benefits-sustainability-partnerships/13476. 5 pages</p> <p>Cayolla, R. R., Santos, T., & Quintela, J. A. (2021). Sustainable Initiatives in Sports Organizations—Analysis of a Group of Stakeholders in Pandemic Times. <i>Sustainability</i>, 13(16), 9122. https://doi.org/10.3390/su13169122. (pp. 1-13) 14 pages</p> <p><i>Additional timely industry readings will be added to the Canvas site</i></p>	(Individual Assignment)
Week 13	<p>Lifestyle Choices & Behavioral Change</p> <p>Leveraging influence</p> <p>Fan engagement</p>	<p>Dingle, G., & Mallen, C. (2022). Sport and Environmental Sustainability: Research and Strategic Management. Routledge. (pp. 261- 267) 7 pages</p> <p>Required Articles:</p> <p>Tangen, J. O. (2021). Is sport Sustainable?—It depends! <i>Frontiers in Sports and Active Living</i>, 3. https://doi.org/10.3389/fspor.2021.679762 (pp. 1-14) 15 pages</p> <p><i>Additional timely industry readings will be added to the Canvas site</i></p>	No assignment this week
Week 14	Presentations & Final Project Due		Final Report and Presentation: Analysis of a Mega Sporting Event (Group)

Course Policies

Participation and Attendance

You are expected to complete all assigned readings, attend all class sessions, and engage with others in online discussions. If you need to miss a class, please contact the Lecturers and the Course Associate as soon as you know why.

Laptops in the Classroom

Students will NOT use laptops or cell phones during class. If you are observed doing so, your grade will be negatively impacted. Phone calls during class are allowed if it is a personal emergency or an important work matter. Please leave the classroom to take or make the call. Please respect your fellow students, the Lecturer, the Course Associate, and the guest speakers (Industry Professionals).

Late work

There will be no credit granted to any written assignment that is not submitted on the due date noted in the course syllabus without advance notice and permission from the instructor.

Citation & Submission

All written assignments must use standard citation format (e.g., MLA, APA, Chicago), cite sources, and be submitted to the course website (not via email).

School and University Policies and Resources

Copyright Policy

Please note that due to copyright restrictions, online access to this material is limited to instructors and students currently registered for this course. Please be advised that by clicking the link to the electronic materials in this course, you have read and accept the following:

The copyright law of the United States (Title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted materials. Under certain conditions specified in the law, libraries and archives are authorized to furnish a photocopy or other reproduction. One of these specified conditions is that the photocopy or reproduction is not to be "used for any purpose other than private study, scholarship, or research." If a user makes a request for, or later uses, a photocopy or reproduction for purposes in excess of "fair use," that user may be liable for copyright infringement.

Academic Integrity

Columbia University expects its students to act with honesty and propriety at all times and to respect the rights of others. It is fundamental University policy that academic dishonesty in any guise or personal conduct of any sort that disrupts the life of the University or denigrates or endangers members of the University community is unacceptable and will be dealt with severely. It is essential to the academic integrity and vitality of this community that individuals do their own work and properly acknowledge the circumstances, ideas, sources, and assistance upon which that work is based. Academic honesty in class assignments and exams is expected of all students at all times.

SPS holds each member of its community responsible for understanding and abiding by the SPS Academic Integrity and Community Standards posted at <https://sps.columbia.edu/students/student-support/academic-integrity-community-standards>. You are required to read these standards within the first few days of class. Ignorance of the School's policy concerning academic dishonesty shall not be a defense in any disciplinary proceedings.

Diversity Statement

It is our intent that students from all diverse backgrounds and perspectives be well-served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that the students bring to this class be viewed as a resource, strength, and benefit. It is our intent to present materials and activities that are respectful of diversity: gender identity, sexuality, disability, age, socioeconomic status, ethnicity, race, nationality, religion, and culture.

Accessibility

Columbia is committed to providing equal access to qualified students with documented disabilities. A student's disability status and reasonable accommodations are individually determined based on disability documentation and related information gathered through the intake process. For more information regarding this service, please visit the University's Health Services website: <https://health.columbia.edu/services/ods/support>.

Class Recordings

All or portions of the class may be recorded at the discretion of the Instructor to support your learning. At any point, the Instructor has the right to discontinue the recording if it is deemed obstructive to the learning process.

If the recording is posted, it is confidential and it is prohibited to share the recording outside of the class.

SPS Academic Resources

The Office of Student Affairs provides students with academic counseling and support services such as online tutoring and career coaching: <https://sps.columbia.edu/students/student-support/student-support-resources>.

Columbia University Information Technology

[Columbia University Information Technology](#) (CUIT) provides Columbia University students, faculty, and staff with central computing and communications services. Students, faculty, and staff may access [University-provided and discounted software downloads](#).

Columbia University Library

[Columbia's extensive library system](#) ranks in the top five academic libraries in the nation, with many of its services and resources available online.

The Writing Center

The Writing Center provides writing support to undergraduate and graduate students through one-on-one consultations and workshops. They provide support at every stage of your writing, from brainstorming to final drafts. If you would like writing support, please visit the following site to learn about services offered and steps for scheduling an appointment. This resource is open to Columbia graduate students at no additional charge. Visit <http://www.college.columbia.edu/core/uwp/writing-center>.

Career Design Lab

The Career Design Lab supports current students and alumni with individualized career coaching, including career assessment, resume & cover letter writing, agile internship job search strategy, personal branding, interview skills,

career transitions, salary negotiations, and much more. Wherever you are in your career journey, the Career Design Lab team is here to support you. Link to <https://careerdesignlab.sps.columbia.edu/>