

Science in Sport  
TR 12:30-1:45  
3 Credit Hours  
Fall 2018  
Olin 155

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**Course Description:** Science and sport are two common fields of interest in the American culture. They can coexist without each other. However, combining these two fields together has produced a variety of successes and failures that have furthered the knowledge, enjoyment, and experiences of many in the two fields. Concussions, performance enhancing drugs, genetic testing, and career longevity are some of the areas where science and sport have more recently overlapped. These areas will be focused on in this class while introducing students to critical thinking, college writing, and the liberal arts.

**Textbook/Resources:** Assigned readings will be available on Blackboard.

**Course Objectives:**

1. Demonstrate the ability to read, understand, and utilize research to defend an opinion or point of view.
2. Understand the importance of research and how it can be used to advance ideas or in particular, impact the world of sports
3. Understand what a proper methodology is for research and begin to develop research questions and methods to answer those questions
4. Develop critical thoughts and effectively convey those thoughts in verbal and written forms of communication

(Note: While this class is called Science in Sports, the learning objectives do not directly involve sports. Instead, we will use the sports to help develop and improve on the course objectives.)

**Assessment:** Student evaluation is based upon the following assignments during the semester. Remember in all assignments to properly cite information or ideas that are not your own thoughts. All assignments should be written in 12 point, Times New Roman font.

- **Cultural Celebrations:** Students will attend two cultural celebrations or similar programming that occurs on campus. Students will need to attend the events by November 29<sup>th</sup>. An in-class discussion will occur on the 29<sup>th</sup> to allow for reflection on the events and what has been and can be learned from the events.

- **Game Reflection:** You must watch a live sporting event. This can be on TV or in person. It can be any sport (from football to drone racing). You must submit a reflection on how science influenced the game. It could be an injury, a play, an athlete, a piece of equipment, a technique, or something else. Reflection should be 2 pages of writing.
  
- **Research Exploration Paper #1:** Students will be assigned to groups by the professor and provided a prompt related to the class and side of the argument they must support. You must each locate one popular source article and one primary research article that supports that argument. After locating and reading the sources you will gather as a group to discuss and debate the sources and how they support an argument/side for the prompt you have selected. Each student will then write a 2-3 page paper making an argument for one side of the prompt. The goal of this paper is to explain your understanding of the topic, discuss how the sources you utilize support one side of the argument for the prompt you have chosen, and the strength of the information included in the sources you are using. Please use the following questions to help develop your paper:
  - **What does someone who has no knowledge about this topic need to know to develop an opinion?**
  - **What is the main reason or logic behind the argument the side of the prompt supported by your sources?**
  - **What questions (or holes in logic) do your sources leave unanswered or unsupported?**
  - **What is the importance of coming to a definitive answer on either side?**
  
- **In Class Debates:** At several points during the semester, we will have in-class debates. Students will be broken up into teams and have 15 minutes to develop an argument. Readings on the topics will be provided prior to class. These debates are NOT the same as debate club where you are trying to score points. Instead we will listen to each side and assess the strengths and limitations of each argument.
  
- **Product Evaluations:** Three products sold on the internet will be evaluated for effectiveness. For each assignment, the product will be presented to the students prior to class. During class, its validity will be discussed and debated. The structure of the debate and end product will escalate throughout the semester. Two papers arguing for or against using the product will be due 2 weeks after the in-class discussion for the first two products. You must utilize the writing workshop when writing one of these two papers. The following prompts should be used for the papers:
  - Paper #1 – Is the product effective? Would you use it or recommend it to a friend or family member? Why would you use it? Support your argument with 1 scholarly source.

- Paper #2 – Is the product effective? Would you use it or recommend it to a friend or family member? Why would someone who has doubts or holds the opposite viewpoint think this product works/does not work? Support your argument with 3 scholarly sources (one must discuss the counterargument, acknowledging its strengths and limitations).
- **Reflection of Writings:** Look back at past writings you have completed throughout the semester. Describe your writing you have produced over the semester in a 1-2 page paper. How has it developed, changed, or remained the same? When writing your reflection, analyze the work you have produced closely, quoting it to support your claims about the evolution of this writing.
- **Research Exploration Paper #2 -** For this assignment, you need to compose an argumentative essay (4-5 pages) regarding the different perspectives on one of the following statements. The purpose of this assignment is not necessarily to develop or find the “right” answer to these prompts. However, the purpose is to begin the process of finding quality sources from which an opinion or argument can be generated. To do this, here are some additional questions to ask yourself during the assignment:
  - **What are the potential strengths of answers on both sides?**  
**What are the weaknesses of supporting either side?**
  - **What is the main reason or logic behind the argument on either side of the prompt?**
  - **What does someone who has no knowledge about this topic need to know to develop an opinion?**
  - **What is the importance of coming to a definitive answer on either side?**

Find two articles from popular sources to help broaden your background knowledge on the subject, and three primary research articles to help dig deeper into research and evidence. The sources you select must provide contrasting views on the topic. You must attend the writing workshop as a part of this assignment.

**Prompts:** (Can choose opposite side if desired. A student desiring to explore a topic beyond these prompts should discuss that with course instructor prior to starting on assignment.)

- Athletic Trainers or other healthcare providers should be mandated on the sidelines for all high school collision sports.
- Athletic Trainers or other healthcare providers should be mandated for all youth league sports.
- Athletes in youth sports should be limited on number of games/practices they can participate in a year.
- Dr. Bennett Omalu’s suggestion that minors should not be allowed to participate in tackle football should be implemented.
- Due to a number of provocative actions, the 2018 FIFA World Cup should not have been held in Russia.

- The Russian Olympic team should not have been banned from the Winter Olympics in 2018.
- The Maryland football coaches and athletic training staff should not be fired over the death of Jordan McNair.

Cultural Celebrations	5%
Game Reflection	5%
Reflection of Writings	10%
Debate Grade	5%
Product Evaluations	25%
Research Exploration Papers (2)	50%

<b>Course Grading:</b>	93-100%	A	87-89.9%	B+	77-79.9%	C+	67-69.9%	D+	<59.9%	F
	90-92.9%	A-	83-86.9%	B	73-76.9%	C	63-66.9%	D		
			80-82.9%	B-	70-72.9%	C-	60-62.9%	D-		

**Writing Workshop:** As noted in the course calendar, you will be required to attend the writing workshop on at least two occasions. You are welcome to attend the workshop more often if you like. Please note the following about completing this course requirement:

1. Make an appointment to attend the workshop 2-3 weeks prior to the desired date (noted on the course calendar).
2. Please bring your computer to class on the dates where the workshop appointment scheduling is included. We will do this in class.
3. While you can reschedule appointments, not showing up is not appreciated and will negatively impact your grade (count as a class absence).
4. Bring the assignment and current draft of your paper with you to the workshop appointment.

**Class Absence Policy** – Being in class is an important part of developing the research and critical thinking skills associated with this class. Participating in class discussions should enhance your experience as well. Thus, attendance is tracked in this course. After 4 unexcused absences, your grade will begin to suffer. For each additional absence, your grade will be lowered by 10%.

**Title IX/Sexual Harassment** - The University has resources available for students who have experienced sexual or interpersonal misconduct, which can include sexual harassment, sexual assault, dating violence, and stalking, for example. Some resources are legally confidential, which means personal information will not be shared with anyone else. Other non-confidential (yet still private) resources can explain how to locate support resources, file a complaint within the university, or file criminal charges – these non-confidential resources need to share incidents of sexual and interpersonal misconduct with the Title IX Coordinator. As an instructor, I am non-confidential; however, please know that sharing with the university does not mean the individual must participate in a formal university or criminal process; an individual could request confidentiality through the

University, for example. Other services the university can provide include safety planning, counseling, disability or immigration services and assistance in academic and housing accommodations as needed. University contacts:

- Resources and reporting options can be found on the Title IX webpage at [www.drake.edu/titleix](http://www.drake.edu/titleix).
- Violence Intervention Partner (V.I.P.) provides peer-based 24/7 confidential support and advocacy services.

To access a V.I.P. advocate call or text 515-512-2972. • Katie Overberg, Title IX Coordinator: 271-2982 or [titleix@drake.edu](mailto:titleix@drake.edu)

### **Disability Statement:**

It is the policy at Drake University to accommodate students with disabilities, pursuant to federal law and state law. Any student with a documented disability who needs accommodation, for example in arrangements for seating, examinations, note-taking, should contact, Michelle Laughlin in Student Disability Services at 515-271-1835. Once the appropriate documentation is received from the Student Disability Services Office, please provide it to the instructor as soon as possible.

### **Honor Code:**

All University and College policies regarding student and instructor conduct and academic integrity apply to this class. The College's Honor Code Policy may be found in the Handbooks & Policies area linked at [www.drake.edu/cphs](http://www.drake.edu/cphs).

### **Electronic Devices:**

Use of laptop computers and handheld electronic devices (i.e. phones, PDAs, iPods, etc.) is permitted in class during specified times to assist learning. Any use of any device that leads to distraction from the learning for other students will not be tolerated. Inappropriate use may include viewing online content not related to the class (including social networking sites), text messaging, answering phone calls, viewing video, and listening to music on such devices. Repercussions for inappropriate use are at the discretion of the course instructor and may include (but are not limited to) dismissal from the class session, temporary confiscation of the device, and/or reporting the incident as an Honor Code violation.

### **Semester Schedule**

#### **Course Content**

#### **Assignments and Readings**

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August 28 – Course Introduction

**\*MAKE AN APPOINTMENT TO ATTEND THE WRITING WORKSHOP BETWEEN THE 8<sup>TH</sup> AND 12<sup>TH</sup> OF OCTOBER**

August 30 – Types of Evidence, Debates, Research, Citations

September 4 – History of Sport

September 6 – *Library Day #1* (In Olin)

September 11 – Concussions, Past & Present Research

September 13 – Future Concussion Research & Rule Changes

September 18 – *League of Denial*

**Readings & Links on Blackboard**

**[LIBRARY ASSIGNMENT DUE](#)**

**[GAME REFLECTION DUE](#)**

**Readings & Links on Blackboard**

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September 20 – <i>League of Denial</i> + Discussion	
September 25 – ACL Injuries + Lab	<b>Readings &amp; Links on Blackboard</b>
September 27 – Overuse Injuries & Career Longevity	<b>Readings &amp; Links on Blackboard</b>
	<b><u>RESEARCH EXPLORATION PAPER #1 DUE</u></b>
October 2 – Injury Treatments + Lab	<b>Readings &amp; Links on Blackboard</b>
October 4 – Product Evaluations #1	
October 9 – Professor v. Students Debate - Sport Specialization	<b>Readings &amp; Links on Blackboard</b>
October 11 – Youth Sports	<b>Readings &amp; Links on Blackboard</b>
October 16 – <b>NO CLASS – FALL FREE DAYS</b>	
October 18 – Product Evaluations #2	<b><u>PRODUCT EVAL #1 DUE</u></b>
October 23 – Transgender & Gender Testing in Sport	<b>Readings &amp; Links on Blackboard</b>
October 25 – Adapted Sports & Athletes with Disabilities	<b>Readings &amp; Links on Blackboard</b>
October 30 – Performance Enhancing Drugs	
<b><u>*MAKE AN APPOINTMENT TO ATTEND THE WRITING WORKSHOP BETWEEN THE 26<sup>TH</sup> AND 30<sup>TH</sup> OF NOVEMBER.</u></b>	
November 1 – <i>Library Day #2</i> (In Library)	
November 6 – <i>Chasing Perfection</i>	<b>Readings &amp; Links on Blackboard</b>
November 8 – Athletic Performance Enhancement	<b>Readings &amp; Links on Blackboard</b>
November 13 – Biomechanics + Lab	<b><u>PRODCUT EVAL #2 DUE</u></b>
November 15 – Nutrition	<b>Readings &amp; Links on Blackboard</b>
November 20 – Evidence Based Medicine & Vaccines	
November 22 – <b>NO CLASS – THANKSGIVING BREAK</b>	
November 27 – Product Evaluations #3 (NO PAPER)	
November 29 – Cultural Celebration Discussions	<b><u>REFLECTION PAPER DUE</u></b>
December 4 – In-Class Partner Work on Argumentative Essay	
December 6 – Class Wrap-Up	
December 11 – <b><u>RESEARCH EXPLORATION PAPER #2 DUE, @ 12:00 pm</u></b>	

**Disclaimer/Subject-to-Change Statement:** Changes to the syllabus may occur during the semester. Students will be notified of these changes via in class announcements or emails.