HTS 3089 – SCIENCE, TECHNOLOGY, & SPORTS

Spring 2017

Tuesday & Thursday, 1:35 – 2:35 PM
Architecture West (Room 258)

Instructor: Dr. Matt Ventresca

Office Hours:
Tues 3:15pm – 4:45pm
Thurs 11:15am – 12:45pm
and by appointment

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Course Description:

Sport is viewed by some scholars as socially constructed, and, therefore, a product of society. This idea has prompted considerable attention from researchers across the globe working within a wide array of scholarly disciplines and sub-disciplines. The sociology of sport is perhaps the most prominent, largest, and best established of the sub-disciplines studying sport in an academic context. Additionally, it was first to be a focus of study and have dedicated courses taught in institutions of higher education. The sociology of sport draws on a variety of theoretical and methodological perspectives to critically examine social processes as they shape, and are shaped by, the realm of sport, health, and physical activity.

Underpinned by sociology of sport perspectives, this course critically explores the intersection of science, technology, and sports. Course discussions will examine:

- what constitutes a "sport," science, technology, and performance.
- sociological phenomena relevant to the intersection of science, technology, and sports.
- literature concerning debates on the role of technology in supporting and contesting social inequalities through sports.
- how scientists describe and interpret perceived human differences (e.g., race, sex/gender) as they are related to sport performance.
- literature on the impact of science and technology on athletic performance.
- literature regarding safety, risk, and the role of medicine in sports.
- debates surrounding cyborg athletes and the future of sports.

Learning Objectives:

- Apply sociological perspectives and methods to analyze the intersections of sports, science, and technology.
- Develop a working knowledge of core concepts to evaluate the risks, ethics, and social responsibilities associated with sports, science, and technology.

- Critically analyze literature from a number of academic disciplines to explain the relationship between science and ideology in sport contexts.
- Investigate a variety of different sport environments to challenge ahistorical and apolitical understandings of science and technology.
- Effectively synthesize research findings to construct compelling sociological arguments using multiple forms of communication.

Core Area E:
This course satisfies the requirement for Core Area E: Social Sciences - students will demonstrate the ability to describe the social, political, and economic forces that influence social behavior.

This course is about the intersections of sports (and studies of them), with science, technology, and society. Students will learn how the social, political, and economic forces at work in and through sports influence social behavior through an examination of: topics concerning the role of science and technology in supporting and contesting social inequality through sports; debates surrounding the impact of science and technology on human performance and understandings of human differences (e.g. race, sex/gender); and literature regarding risk, ethics, and the role of media and politics in sports.

Students will demonstrate that they have met the Area E learning outcomes through critical engagement with course readings and the completion of research papers/oral presentations.

Course Format:

This course requires students to participate in class discussions, apply critical reading skills, and multiple individual projects. Students will engage with readings from both the academic literature and popular press, be responsible for leading a class discussion, complete in-class assignments, participate in a self-tracking project, write research papers, and give oral presentations. Students are expected to complete assigned readings **prior to class**, and be prepared to discuss them (e.g. take notes, prepare questions). Course readings will either come from your course textbook (Magdalinski [2009], see below) or be provided on T-Square (in the Resources section) well in advance of their corresponding classes.

Course textbook (required):
Magdalinski, T. (2009). *Sport, technology and the body: The nature of performance*. London: Routledge. ISBN: 978-0-415-37876-5.

Grading and Requirements:

The following is an overview of course assignments and their contributions to the final course grade. Please see T-Square (Assignments section) for complete descriptions and criteria for each of the course assessments.

Course grades are made up of the following components:

Attendance and Participation: 10%
Group Discussion Lead: 15%
Cyborg Tournament: 15%
Quantified Self Project: 20%
Literature Review: 20%
3MT Presentation and White Paper: 20%

Grading Scale:

A: 90 - 100%
B: 80 - 89%
C: 70 - 79%
D: 60 - 69%
F: 59% and below

Participation – 10%
Success in this course is dependent upon your preparation and active in-class participation. Students are expected to arrive on time and be prepared to discuss assigned readings, participate in class activities, and actively listen (i.e. take notes and prepare follow-up questions). Participation is not evaluated in terms of how many times you comment, but by your ability to clearly demonstrate that you have read and comprehended the assigned readings, and the quality of your overall in-class engagement (including participation in, and completion of, in-class and homework assignments such as viewing guides, quizzes, and writing exercises).

Attendance Policy
As stated in the Institute's attendance policy, "students are responsible for all material covered in their absences, and they are responsible for the academic consequences of their absences" (http://studentlife.gatech.edu/content/class-attendance). Students missing classes because of documented personal emergencies or participation in Institute-approved activities (e.g. class field trip, athletic events) are permitted to make up work missed during class time, but will be expected to attend class in all other circumstances. Please let the instructor know as soon as possible when you will miss a class due to a personal emergency or participation in an Institute-approved activity so that appropriate arrangements can be made.

Group Discussion Lead: 15%
Over the course of the semester, each student will serve as part of a group discussion lead. Students will work in groups of two or three, and will be responsible for facilitating

a 30-45 minute in-class discussion of their assigned topic including: summaries and syntheses of assigned and additional reading(s), empirical (i.e. real world/everyday) examples and applications of the topic, and an activity that aids in learning key content and concepts related to the topic. The group must meet with the instructor at least one week prior to their assigned topic to discuss their plans.

Cyborg Tournament: 15%
Scheduled for Thursday, February 9
Following Howe's (2011) definition of a cyborg as "a hybrid body resulting from fusion of a live organism and man-made technology" (p. 868), students will be randomly assigned a cyborg identity from the world of sport (e.g. Oscar Pistorius). Students will apply Module 1 content to prepare a biography and election-style presentation explaining why their individual provides the best insight into the potentials and limits of the sports cyborg. Students will then go head-to-head in a debate-style Cyborg Tournament to be held in class.

Quantified Self Project: 20%
DUE: Weekly starting Thursday, March 2
Students will participate in a body-focused Quantified Self project during the last two modules. Mirroring the Quantified Self movement, students will engage with **biometric (Part 1) and behavioral (Part 2) digital self-tracking apps** and provide weekly reflections during Module 2 and Module 3 respectively. For more on the Quantified Self movement, visit: quantifiedself.com.

Literature Review: 20%
DUE: Thursday, March 16
Students will complete a **10 page (typed, double-spaced) review of scholarly literature** that expands upon one of the course topics from Module 1 or 2. Students will be expected to locate, and provide support from, at least 2 academic sources in addition to appropriate course readings. Approval of the topic is based on a topic description and bibliography that will be submitted to the instructor by **Thursday, February 22**. In-class and class-release research days will provide students with further instructions, instructor and peer feedback, and time to develop, research, and write this assignment. Students should bring a working outline/rough draft to the in-class workday on **Tuesday, March 14**. Students are also encouraged to seek assistance from the professionals at the GT library.

3MT Presentation & White Paper: 20%
DUE: Presentations begin Tuesday, April 18; White Paper due Tuesday, May 2
Choosing a topic that connects sports to their major discipline, students will prepare a **Three Minute Thesis (3MT) presentation** (**10%**), and complete a **2 – 3 page (typed single-spaced) "white paper"** (**10%**). Both the presentation and paper should be designed to explain how sociology of sport perspectives can supplement the dominant approaches to research and problem solving that characterize your major discipline.

Extra Credit Opportunities

The following extra credit opportunity will be available throughout the course:

Film Review:
On February 13, 2017, the Sports, Society, and Technology program is hosting a screening of Rebecca Carpenter's *Requiem for a Running Back* (2016) and a panel discussion following the film. Students can attend the screening and write a review of the film and panel for **1% extra credit toward their participation grade.**

Course Expectations:

Academic Honesty:
Students in this class will be expected to abide by the Georgia Tech honor code. Academic misconduct of any kind will not be tolerated. All students are responsible for understanding and complying with Georgia Tech rules. For further information, go to: www.honor.gatech.edu

General Courtesy Guidelines:
We expect students to respect their classmates and instructors at all times. Students are expected to be on time for class, refrain from being disruptive, and silence their electronic devices before class begins. Sleeping in class, text messaging, or using a computer for any purposes other than in-class research or taking notes will negatively impact your participation grade. I reserve the right to ask students to leave the class if they are engaging in distracting or inappropriate behaviors.

Accommodations for Students with Disabilities:
If you have a disability that may require assistance or accommodation, or you have questions related to any accommodations for testing, note takers, readers, etc., please speak with the instructor as soon as possible. Students may also contact the Office of Disability Services, located in the Office of the Dean of Students (ODS). The ODS phone number is 404-894-2563.

COURSE SCHEDULE

The course schedule is subject to change. Please refer to T-Square for the most up-to-date schedule, readings, and assignments.

MODULE 1: Extending Sporting Bodies

Week 1 (Jan 9 – 13)

Tuesday – Intro to Course

Thursday – Science, Technology, and Sports: Definitions and Key Concepts

Reading: Magdalinski (2009), Chapter 1: "Introduction"

Week 2 (Jan 16 – 20)

Tuesday – *Bigger, Stronger, Faster* [documentary screening – part one]

Reading: Magdalinski (2009), Chapter 8: "Drugs, sport, and Australian identity"

Thursday - *Bigger, Stronger, Faster* [part two] and Class Discussion

Readings: Carter, K. (2016), "Does 'cupping' do Olympic athletes any good – and does it matter if it doesn't?" Robinson et al (2016), "Perfect, freaky Olympic bodies"

Week 3 (Jan 23 – 27)

Tuesday – Extending Sporting Bodies

Reading: Magdalinski (2009), Chapter 2: "The nature of sport"

Thursday – Modifying Athletes from Within

Readings: Carter, N. (2012), "Testing Times;" Hruby (2016), "The drugs won"

Week 4 (Jan 30 – Feb 3)

Tuesday – Performance Enhancement from Without

Reading: Magdalinski (2009), Chapter 7: "Enhancing the body from without" (pp. 109-120)

Thursday – Posthuman Prosthetics

Reading: Magdalinski (2009), Chapter 7: "Enhancing the body from without" (pp. 120-127)

Week 5 (Feb 6 – 10)

Tuesday – Extending Recreational Bodies

Readings: Millington (2014), "Amusing ourselves to life;" Concepcion (2016), "In the future, we will all watch 'Overwatch'"

Thursday – Cyborg Tournament

MODULE 2: Constructing Sporting Bodies

Week 6 (Feb 13 – 17)

Tuesday – Module Intro

Reading: Magdalinski (2009), Chapter 3: "The nature of the body"

Thursday – *Bodies* [Exhibition – Atlantic Station]

Reading: Pronger (1995), "Rendering the body"

NOTE: Students are required to visit BODIES: Atlanta at the Premier Exhibition Center at Atlantic Station and responsible for admission costs to the exhibit (approx. $20 – $25 per student). More details will be provided in class.

Week 7 (Feb 20 – 23)

Tuesday - #YourBody: Health, Fitness, and the Quantified Self

Reading: Lupton (2013), "Understanding the Human Machine"

Thursday – Inspecting Gender Verification / Lit Review Check-In

Reading: Magdalinski (2009), Chapter 6: "'Those girls with sideburns'"

NOTE: Week 1 of Quantified Self project begins.

NOTE: Lit Review topic description and bibliography due Thursday.

Week 8 (Feb 27 – Mar 3)

Tuesday – *Race: The Power of an Illusion* [documentary screening]

Reading: Wiggins (1989), "'Great speed but little stamina'"

Thursday – Deconstructing the "Natural" Black Athlete

Readings: Oates & Durham (2004), "The mismeasure of masculinity;" Starkey (2016), "Implicit bias and the NFL Draft"

NOTE: Quantified Self Part 1/Week 1 reflection due.

Week 9 (Mar 6 – 10)

Tuesday – Risk, Pain, and Injury

Reading: Magdalinski (2009), Chapter 5: "The nature of health"

Thursday – The Concussion "Crisis": Sports and Neuroscience

Reading: Bachynski & Goldberg (2014), "Framing risks of mild traumatic brain injury in American football and ice hockey"

NOTE: Quantified Self Part 1/Week 2 reflection due.

Week 10 (Mar 13 – 17)

Tuesday – LIT REVIEW ASSIGNMENT: Work Day (in class)

Thursday – LIT REVIEW ASSIGNMENT: Work Day (class release)

NOTE: Students should bring Lit Review outline and/or rough draft to Tuesday's class.

NOTE: Quantified Self Part 1/Week 3 reflection due.

NOTE: Lit Review due **Thursday at 11:59pm.**

WEEK 11 – SPRING BREAK (NO CLASSES)

MODULE 3: Current Debates and Controversies

Week 12 (Mar 27 – 31)

Tuesday – Module Intro

Reading: Magdalinski (2009), Chapter 6: "The nature of performance; Chapter 10: "Conclusion"

Thursday – Sports Nutrition

Reading: Ventresca & Brady (2015), "Food for thought"

NOTE: Quantified Self Part 1/Week 4 reflection due.

Week 13 (Apr 3 – 7)

Tuesday – Sports Analytics and Big Data

Readings: Millington & Millington (2016), "'The Datafication of Everything';" Partnow (2016), "Moreyball, Goodhart's Law, and the limits of analytics;" Smith (2016), "Over and out"

Thursday – 3MT / WHITE PAPER ASSIGNMENT: Work Day (in class)

NOTE: Quantified Self Part 2/Week 1 reflection due.

Week 14 (Apr 10 – 14)

Tuesday – Athletic Footwear: Standing at the Nexus of Science and Marketing

Readings: Gibson (2012), "Knight's Children;" Eden (2016), "The secret lab where Nike invented the power-lacing shoe of our dreams"

Thursday – 3MT / WHITE PAPER ASSIGNMENT: Work Day (in class)

NOTE: Quantified Self Part 2/Week 2 reflection due.

Week 15 (Apr 17 – 21)

Tuesday / Thursday – 3MT Presentations

NOTE: Quantified Self Part 2/Week 3 reflection due.

Week 16 (Apr 24 – 28)

Tuesday – 3MT Presentations / Course Conclusion

NOTE: Quantified Self Part 2/Week 4 reflection due **Tuesday**.

NOTE: White Paper assignment due **Thursday, April 27 at 11:59pm.**