HTS 3089 QUP – SCIENCE, TECHNOLOGY, & SPORTS

Early Short Summer Session 2015

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Course Description:

Sport is viewed by some scholars as socially constructed, and therefore, a product of society. This has prompted considerable international attention from researchers from a wide array of disciplines and subdisciplines. The sociology of sport is perhaps the most prominent, largest, and best established of the subdisciplines studying sport. Additionally, it was first to be studied and have dedicated courses taught in institutions of higher education. Sociology of sport draws on a variety of theoretical and methodological perspectives to study critical social processes. 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 processes relevant to the intersection of science, technology, and sport.
- how scientists describe and interpret perceived human differences (e.g., race, sex) as 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.
- the role of architects and the built environment in sport.
- debates surrounding cyborg athletes and the future of sport.

Learning Objectives:

By the end of this course students should be able to:

- understand the social and cultural dimensions of sport, science, and technology.
- understand the underlying principles of significant debates on the impact of science and technology on sport.
- apply a sociological perspective and its methods to the intersection of sports, science (inclusive of the social sciences), and technology.
- demonstrate a working knowledge of core concepts, theories, and methodologies.
- understand the risks, ethics, and social responsibilities associated with sports, science, and technology.
- understand the relationship between science and ideology in sports.
- critically analyze and evaluate scholarly literature on various dimensions of science, technology, and sport.
- effectively use written and oral forms of communication to construct compelling arguments.
- effectively synthesize research findings.
- gain a deeper understanding of the course materials through collaborative learning with peers.
- gain sociological knowledge and perspectives on contemporary sporting practices.
- improve ability to articulate complex arguments.

Core Area E:
This course satisfies the requirement for Core Area E: Social Sciences - student 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 it, with science, technology, and society. Students will learn how the social, political, and economic forces at work in, and through, sport, influence social behavior through an examination of: topics concerning the role of technology in supporting, and contesting, social inequality through sports; debates surrounding the impact of science and technology, and perceived human differences (e.g. race, sex), on performance; and, literature regarding risk, ethics, and the role of media and politics in sport.

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

Course format:
This course will be offered entirely online. Students will be expected to commit the same amount of time engaging with course materials as they would for an on-campus summer course – i.e. 2½ hours 3 times per week, plus time allocated for completing course readings and assignments.

<u>Grading and Requirements:</u>
Grading Scale:

- **Participation: 20%**
  Daily activities: 10%
  Course reading summary: 10%
  - In lieu of in-class participation points, students will be responsible for completing summaries for selected course readings, and engaging in brief daily (3 days/wk) course activities (e.g. quizzes, guiding questions) to further understanding of course concepts.
- **Quantified Self Project: 25%**
  - Students will participate in a body-focused Quantified Self Project for the duration of the course. Mirroring the Quantified Self movement, students will engage in self-tracking through various technologies and provide weekly reflections. For more on the Quantified Self movement, go to: quantifiedself.com.
- **Cyborg Round Robin: 15%**
  - 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 assigned a cyborg identity (e.g. Oscar Pistorius) and prepare a biography to go head-to-head with their classmates in a cyborg tournament.
- **Literature Review: 25%**
  - Students will complete an 8-10 page (typed, double-spaced) review of literature that expands upon one of the course topics from Module 1 or 2. Students will be expected to locate, and provide support from, 2 academic sources in addition to course resources.
- **State of the Field(s) PechaKucha Presentation: 15%**
  - Students will pick a "State of the Field" topic related to their major discipline, prepare and record a PechaKucha (20 slides, 20 seconds each) presentation, and watch and provide feedback on peer presentations.

COURSE SCHEDULE *

**Subject to change. Refer to T-square for the most up-to-date schedule, readings, and assignments.*

MODULE 1: EXTENDING SPORTING BODIES

Week 1 – May 11-15

Day 1

- Course Introduction
- **Module 1 INTRODUCTION**: Extending Sporting Bodies
- Quantified Self Project **INTRODUCTION**
  - Lupton, D. (2013). Understanding the human machine. *IEEE Technology and Society Magazine, 32*(4), 25-30.

Day 2

- Modifying Athletes
  - Bell, C. (2008). *Bigger, stronger, faster** [Motion Picture]. Los Angeles: Magnolia Home Entertainment.
  - Carter, N. (2009). Testing times. In N. Carter, *Medicine, sport and the body: A historical perspective* (pp. 105-127). London: Bloomsbury.

Day 3

- Performance Enhancement from Without
  - Magdalinski, T. (2009). Enhancing the body from without: Artificial skins and other prosthetics. In T. Magdalinski, *Sport, technology and the body* (pp. 109-127). New York: Routledge.
  - James, D. (2010). The ethics of using engineering to enhance athletic performance. *Procedia Engineering,* 2, 3405-3410.

Week 2 – May 18-22

Day 1

- Posthuman Prosthetics
  - Howe, D.P. (2011). Cyborg and supercrip: The Paralympics technology and the (dis)empowerment of disabled athletes. *Sociology 45*(5), 868-882.
- Quantified Self Project – **weekly reflection and screenshots DUE**

Day 2

- Extending Recreational Bodies
  - Millington, B. (2014). Amusing ourselves to life: Fitness consumerism and the birth of bio-games. *Journal of Sport and Social Issues, 38*(6), 491-508.
  - Tanz, J. (2011, June, 28). Kinect hackers are changing the future of robotics. *Wired.* Retrieved from http://www.wired.com/2011/06/mf_kinect/all/.

Day 3

- **Cyborg Round Robin**

MODULE 2: CONSTRUCTING SPORTING BODIES

Week 3 – May 25-29

Day 1

- **Module 2 Introduction**: Constructing Sporting Bodies
- Literature Review **INTRODUCTION**
- Quantified Self Project – **weekly reflection and screenshots DUE**

Day2

- Deconstructing the Natural Black Athlete
  - Pounder, C.C.H., Adelman, L., Cheng, J., et al. (2003). *Race: The power of an Illusion* [Motion Picture]. San Francisco: California Newsreel.
  - Wiggins, D. (1989). "Great speed but little stamina:" The historical debate over black athletic superiority. *Journal of Sport History, 16*(2), 158-185.

Day 3

- Inspecting Gender Verification
  - Karkazis, K, & Jordon-Young, R. (2014, April 10). The trouble with too much T. *New York* Times. Retrieved from http://www.nytimes.com/2014/04/11/opinion/the-trouble-with-too-much-t.html?_r=0
  - Sullivan, C.F. (2000). Gender verification and gender policies in elite sport: Eligibility and "fair play". *Journal of Sport and Social Issues, 35*(4), 400-419.

Week 4 – June 1-5

Day 1

- Damaged Selves: Risk, Injury, and Pain in Sport
  - Laurendeau, J. (2014). "Just tape it up for me, ok?": Masculinities, injury and embodied emotion. *Emotion, Space and Society, 12*, 11-17.
- Quantified Self Project – **weekly reflection and screenshots DUE**

Day 2

- Evaluating Inactive Youth
  - Centers for Disease Control and Prevention. (2007). Body mass index measurements in schools: Executive summary. Retrieved from http://www.cdc.gov/healthyyouth/npao/publications.htm#10
  - Williamson, B. (2014). Algorithmic skin: Health-tracking technologies, personal analytics and the biopedagogies of digitized health and physical education. *Sport, Education and Society, 20*(1), 131-151.

Day 3

- **Module 3 INTRODUCTION**: State of the Field: Current & Future Directions
- State of the Field(s) PechaKucha presentations **INTRODUCTION**

MODULE 3: STATE OF THE FIELD: CURRENT & FUTURE DIRECTIONS

Week 5 – June 8-12

Day 1

- **RESEARCH DAY**
- Quantified Self Project – **weekly reflection and screenshots DUE**

Day 2

- State of the Field(s) PechaKucha **PRESENTATIONS**

Day 3

- State of the Field(s) PechaKucha **PRESENTATIONS**

FINAL EXAMS – June 15-17

- **LIT REVIEW DUE by noon on June 17**