HTS 3089  Science, Technology and Sports MWF 12:05-12:55 PM  D.M. Smith 104
Instructor:  Dr. W. Pearson, Jr.  Office:  OCE, Room 119  Phone: 385-2265
E-mail: willie.pearsonjr@hts.gatech.edu  Office Hours:  MWF 1:00-2:00 PM and by appointment. During my regularly scheduled office hours, if you are unable to meet or if I am unavailable (due to meetings or speaking engagements), please leave a voice-mail message or speak with me after class and we can set up an appointment for an alternative time.

Required Readings:  See Course Calendar
READINGS: Additional required readings may be distributed in class or electronically.
The instructor reserves the right to make revisions to the syllabus and course calendar. You are responsible for work according to any and all changes. In case of revisions, you will receive an e-copy to replace the original.

INTRODUCTORY STATEMENT
This course is designed to introduce studies to the critical study of sport, science and technology. This is an emerging field that has its roots both in sport studies and also within science and technology studies.

To put the discussion in perspective, the course will:
• Discuss what constitutes a “sport”, technology and performance.
• Discuss the sociological processes relevant to the intersection of science, technology and sport.
• Examine the literature concerning debates on the role technology in supporting and contesting social inequality through sports.
• Discuss how scientists describe and interpret perceived human differences including that of racist science as related to sport performance.
• Examine the literature on the impact of science and technology on athletic performance.
• Discuss the debates surround cyborg athletes and the future of sport.

COURSE OBJECTIVES
After studying the materials discussed in class, students should be able to:
• understand the social and cultural dimensions of sport, science and technology
• describe the historical contexts in which sports technology developed and continues to flourish
• describe the social, political, and economic forces that influence the development of sports technology
• understand how political and economic forces shape sports technology and athletic bodies
describe how particular technologies have changed sports and dominant understandings of sporting bodies
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

COURSE FORMAT

The course format will consist of lectures, discussions and presentations.

COURSE REQUIREMENTS

NOTE: The course requirements will be adjusted to serve the needs and capabilities of students with disabilities that may negatively impact academic performance. The Georgia Tech Honor Code applies to all student work. Each student is responsible for signing the daily attendance sheet and managing his/her personal folder of class participation and returned assignments. Also, each student is responsible for returning each graded assignment to the coursework folder within one class week.

The final grade will be determined from the average score derived from the following course requirements:

1. **Class participation** (individual and group). Over the course of the semester, each student will serve as a co-discussion leader by presenting a 15-20 minute synthesis of the assigned reading(s), after which the discussion will be opened to the entire class. You are strongly encouraged to supplement the assigned readings with other relevant readings and/or video clips. Given the criticality of class participation, it is
imperative that you keep up with your reading assignments and be well-prepared (this means having thought critically about the readings) to constructively engage in a spirited but respectful discourse. During your reading, it is highly recommended that you take notes and formulate questions. You are expected to be an active participant. Always bring your text, readings, notes and questions to each class. Participation is not evaluated in terms of how many times you comment, but by the clear demonstration that you have read and comprehended the assignments, and the quality of your overall engagement in the discussion. Class participation includes the end-of-term presentations. A weekly participation performance evaluation form is provided in class for your review.

2. Critiques. Four to five page, double-space typed critiques are due in class each Friday (unless otherwise noted). Critiques are not summaries of the readings. Rather, they are focused arguments documented by evidence from the texts, lectures and other assigned readings. Informed opinions are encouraged. The critique must examine the strengths and weaknesses of the authors’ argument. In all cases, one or more of the theoretical perspectives covered in the text and lecture must be applied in the assessment.

The critique requirement includes one group project paper (8-10, typed double-space pages). The group project involves the participation of up to 8 classmates applying a theoretical approach to an international, national, state or local issue relevant to science, technology and sports.

3. Research paper.

The paper—15-20 pages, typed, double-space, including an abstract and annotated bibliography—may be single or co-authored (up to 6 classmates). Approval of the topic is based on the acceptance of an abstract (see Course Calendar). A majority of the sources for the paper must not come from Internet websites. You are encouraged to seek assistance from the professionals at the GT library. The library staff is very knowledgeable about databases and other informational sources. For an additional resource on preparing a high-quality research paper, see Booth, W. C., Colomb, G. C. and Williams, J. M. (most recent edition). The Craft of Research. Chicago: The University of Chicago Press. Major elements of the paper will be covered in class. At various points during the course, you are provided class release time to work on your research paper and group project.

NOTE: Your name and page number must appear on each page of all written assignments. Failure to do so results in an ungraded paper.

4. Presentation. You will present the results of your research paper during the class period at the end of the semester (a scoring guide will be provided at least two
weeks prior to the scheduled presentation). The presentation must be clearly and professionally delivered. If your presentation involves the use of AV equipment, you are strongly advised to come to class early in order to test the equipment. If you plan to distribute handouts, you are responsible for providing a sufficient number of copies for the class. Note that any missed presentation cannot be rescheduled because of designated time slots. Time slots are assigned based on priority of accepted research paper abstracts.

The above four assignments are all required and will be weighed equally (25% each) in determining your final grade. Students do have the option of also taking 2 exams in addition to the four requirements above. For those students taking this option—all assignments and the two tests will be weighted equally. More information about the weighting of the optional exams will be distributed at a later time to those students choosing this option.

5. **Optional Exams.** Two essay exams—a midterm and a final--are administered during the conference hours. Students are allotted one hour and 15 minutes to complete each exam. **Students selecting this optional must request it in writing not later than February 1, 2012.**

All requirements (including optional exams) are weighted equally and will be based on the following scale:

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\begin{align*}
A &= 100-93 \\ B &= 92-85 \\ C &= 84-75 \\ D &= 74-65 \\ F &= \text{below 65}
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Assignments are scheduled for each week. Because all written assignments are given far in advance; **no tardy assignment will be accepted.**

**Attendance Policy.** Each student is responsible for signing the daily attendance sheet. Approved absences typically include: illness, religious holidays, family and personal emergencies, and official representation of GT in extracurricular events. To the extent possible, email and leave a voice message regarding anticipated absences. In the case of a borderline final grade (1 point from the next higher grade), those with fewer than two unexcused absences will automatically receive the higher grade.

**Classroom Protocol.** Please adjust your cell phone or similar electronic device to the “off” position during class. Do not use your computer in class without permission of the instructor.
**Part I: Introduction and Overview of the Course: What Does Sociology Contribute to Our Understanding of Science, Technology and Sport?**

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<td>January 9</td>
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<td>OVERVIEW</td>
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<td>T. Magdalinski, Chapter 1: Introduction: Sport, the Body and Performance Technology 1-13</td>
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<td>January 11</td>
<td>W</td>
<td>INTRODUCTORY LECTURE: Definitions, Theory and Methodology</td>
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<td>T. Magdalinski, Chapter 2, The Nature of Sport 14-30</td>
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<td>T. Magdalinski, Chapter 3, The Nature of the Body 31-53</td>
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<td>January 13</td>
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<td>INTRODUCTORY LECTURE Chapter 2 and 3 CON’T</td>
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<td>M.L.K., Jr. Holiday</td>
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<td>January 18</td>
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<td>What Counts as Sport Performance?</td>
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<td>T. Magdalinski, Chapter 4 The Nature of Performance 54-70</td>
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**ABSTRACT** Hardcopy Due. (For instruction on preparation, see [http://www.emeraldinsight.com/authors/guides/write/abstracts.htm#2](http://www.emeraldinsight.com/authors/guides/write/abstracts.htm#2))

**Part II: Science and Technology Construct Sporting Bodies, Health and Injury**

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<td>January 20</td>
<td>F</td>
<td>History, Science and Technology: Creating the Black Sporting Body</td>
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<td>Debate Over Black Athletic Superiority.” [Journal of Sport History],</td>
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<td>16, 158-185.</td>
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<td>ABSTRACT Returned.</td>
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<td>January 23</td>
<td>M</td>
<td>Challenges to Racist Science Through Sport</td>
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<td>A. Bass (2004). What is this Black in Black Athlete? In [Not the</td>
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<td>Triumph But the Struggle: The 1968 Olympics and the Making of the</td>
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<td>Black Athlete]. Minneapolis: University of Minnesota.</td>
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<td>January 25</td>
<td>W</td>
<td>Racist Science and the Struggle Continues</td>
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<td>O. Harris (2007). Taboo’s Explanation of Black Athletic Dominance:</td>
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**GROUP ABSTRACT DUE**

January 27  F  INTRODUCTORY LECTURE: *Science and Technology Studies*

**GROUP ABSTRACT RETURNED**

January 30  M  Technology, Sport and Embodied Metaphors

February 1  W  Health and Risk

February 3  F  Bodies, Emotion and Risk

February 6  M  RESEARCH DAY

February 8  W  Pain and Technology

February 10  F  Gender and Sport Injury

February 13  M  Gender and Health
Page 7, HTS 3089  Science, Technology and Sports

Part III: Extending the Sporting Body Through Technology

February 15  W  Technology Enhancing Sport: Issues and Controversies  

February 17  F  Equipment Extending the Body  

February 20  M  Enhancing the Sporting Body  
T. Magdalinski, Chapter 7, Enhancing the Body from Without: Artificial Skin and Other Prosthetics

February 22  W  Disability and Prosthetics  

February 24  F  Discourses of Dis/Ability and Technology  

February 27  M  Technology, Policy and Sport: Inclusion/Exclusion  

Part IV: Science, Technology and Performance Enhancement: Issues and Controversies

February 29  W  INTRODUCTORY LECTURE: Performance Enhancement

March 2  F  Technology as Advantage  

March 5  M  Nonotech and Sport  

March 7  W  History of Doping and Performance Enhancement in Sport

March 9  F  Ethics of Doping

March 12  M  Doping and Drugs: Nature versus Culture?

March 14  W  Steroids, Masculinities and Femininities

March 16  F  Media, Meaning and Steroids

RESEARCH PAPER DUE

March 19-23  SPRING BREAK (Travel Safely)

March 26  M  RESEARCH DAY

March 28  W  The Body and New Structures of Sport?

March 30  F  Cyborgs of Sport

RESEARCH PAPER RETURNED
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<td>F</td>
<td>INTRODUCTORY LECTURE: Futurist Perspectives</td>
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<td>April 6</td>
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<td>GROUP CRITIQUE AND BRIEF REPORT DUE</td>
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<td>Sports and Technology in the Future: Are We Agents of Change?</td>
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