

**Spring Quarter, 2004**

**CORE 2428 - Role and Impact of Science-Tools for Today's Living CRN 4158**

(How Today's Olympic Athletes Obtain the Cutting Edge)

Tues, Thurs 2-3:30PM Olin Hall 205

Instructors: Professor Berliner and Dr. William Groves

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Class Start Date March 23rd

Final Class Date May 27th

**Course Description:**

The objectives are to create an analytical student-thinker who has the requisite tools to judge both the scientific, moral, and political-emotional aspects of the Olympic movement in respect to athletic performance. For decades peak athletic performance has inspired individuals as well as governments to invest heavily into scientific research, in the pursuit for gold. For athletes this pursuit in most cases would yield vast economic rewards and for governments immediate political support and power. In modern day athletics performance enhancements are at an all time high. As regulating agencies such as USADA (United States Anti-Doping Agency) and WADA (World Anti-Doping Agency) tighten the restrictions on allowed substances, athletes are turning more to sophisticated ways to obtain gold. From designer steroids to non-steroidal anti-inflammatory agents, the question becomes can USADA and WADA keep up with the demand for Gold? Students will come away with a critical understanding of the usage and "abuses" of chemicals in modern athletics. They will walk away with the tools to evaluate the moral and ethical impacts of performance enhancers and their overall impact on society. In conjunction the students will become informed, analytical, publicly expressed citizens on the future of science on the Olympic Games.

**Important University Dates**

26 March 2004 Last day to register for credit

30 April 2004 Last day for automatic W (6th Week)

28 May 2004 Last day of classes

31 May 2004 No Class-Memorial Day; Reading Day

1-3 June 2004 Final Examination Week

5 June 2004 Undergraduate Commencement

**Important Class Dates**

08 April 2004 -- Quiz 1

22 April 2004 -- Quiz 2

20 May 2004 -- Quiz 3

01 June 2004 -- Final Examination

29 April 2004 -- Class Talks 1

04 May 2004 -- Class Talks 2

13 May 2004 -- Class Talks 3

27 May 2004 -- Olympic Training Center (OTC) Field Trip

?? ??? ???? -- Surprise Guest Speaker

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### Course Dates and Topics

- 23 March 2004 -- Class Introduction
- 25 March 2004 -- The Current and Future Roles of USADA and WADA on the Olympic Movement
- 30 March 2004 -- The Secret Behind Recovery
- 01 April 2004 -- Why Train High?
- 06 April 2004 -- Energy Systems
- 08 April 2004 -- Quiz 1
- 13 April 2004 -- The Growth of Human Growth Hormone from Child Development to the Atlanta 1996 Olympic Games
- 15 April 2004 -- Can Gaultier Make a Better Designer Steroid
- 20 April 2004 -- The Evolution of Strength and Conditioning Training
- 22 April 2004 -- Quiz 2
- 27 April 2004 -- Herbal vs. Synthetic Supplements
- 29 April 2004 -- Class Talks 1
- 04 May 2004 -- Class Talks 2
- 06 May 2004 -- Mental Focus and Athletic Performance
- 11 May 2004 -- Biomechanics of Strength Training
- 13 May 2004 -- Class Talks 3
- 18 May 2004 -- Sports Medicine and Science
- 20 May 2004 -- Quiz 3
- 25 May 2004 -- No Class
- 27 May 2004 -- Field Trip to OTC
- 01 June 2004 -- Final Examination

### Grading for Course

1. Attendance is mandatory, which will be in the form of a signup sheet that will be collected at 2:05PM each day. Anyone arriving late (or leaving early) without prior notification will lose 2 pts per missed class. If you can't make class please send an e-mail to Dr. Groves at least one day in advance.
2. Class participation is encouraged: Each will make a 6 min oral presentation on one of the Class Talk dates give above. Topic should cover science and sport performance. I will give anyone a topic if asked, other than that the student is expected to generate his or her own topic.
3. Final Examination: will be in the form of a fourth quiz and will be on 1 June 2004 in the Olin Hall 203. The Final will cover material from the 3rd Quiz until the end of the quarter.
4. Field Trip to OTC -- Prepare to attend contact ahead of time other classes or employers. If there is a problem tell me ahead of time.

### Grading Summary

Oral Presentation	30
Quiz 1	05
Quiz 2	05
Quiz 3	05
Final Exam	15
<u>Class Attendance</u>	<u>40</u>
Total	100