

**WOST 290A**  
**Introduction to Biology of Difference**  
University of Massachusetts, Amherst  
Tobin 204 / TTh 9:30 p.m.-10:45 a.m.  
Fall 2008

**Professor:** Mary Elizabeth Strunk  
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**→ Course Description and Objectives**

This course critically examines widely held understandings about human biology. Obviously, human bodies have much in common with each other. But, traditionally, humans have also been organized around certain axes of “difference”—sex, gender, race, class, sexuality, religion, nationality—with profound social consequences. These differences can shape not only group affiliation and identity, but may also correlate with socioeconomic status, profession, work mobility, and stereotypes about personal traits and behaviors. How should we regard these correlations? Are they innate and immutable? Or are they constructed and therefore open to change? Or maybe the answer lies somewhere in the middle?

The biological sciences have been very important in the history of how difference is measured and defined. Consider the research on sex and racial differences, on the “gay gene,” and on mathematical and spatial abilities, which would seem to bolster arguments for biological difference. But also consider those scientists who question whether there is any such thing as “race,” or any inherent differences between what we think of as male and female. How should we weigh these claims and counterclaims?

In this course, we will take a hard look at “difference” by exploring the scholarly research and ongoing debates that surround difference in its many forms. Ours will be an interdisciplinary inquiry—which is to say, one that draws from the biological and social sciences as well as the humanities. We will explore basic principles of human biology, including anatomy, physiology, sex/gender/sexuality, reproductive biology, and genetics. We also will contemplate the scientific method(s) and experimental designs. By semester’s end, you will have the tools to analyze critically the scientific studies you hear about in the news. You also will better understand how nature and culture, science and society, and biology and politics are all intertwined.

**→ Required Texts** (*Available at Food for Thought Books and/or on reserve at Du Bois Library*)

- Fausto-Sterling, Anne. Sexing the Body. New York: Basic Books, 2000. [TEXT]
- Multiple e-reserve readings, to be printed out and brought to class. (Password: “bones”) [E]

**→ Assignments and Deadlines**

Participation	In-class/on-line performance & attendance	20%
Quizzes	TBA on day assigned	10%
Assignment 1: Article Summary	Th, 9/25 or T, 9/30	10%
Assignment 2: Assessing Popular Science	T, 10/21	10%
Assignment 3: Ethnography of Good Health	Th, 12/4	10%
Midterm Exam	Th, 10/30	20%
Final Exam	12/18 (tentative)	20%

Total: 100%

## → Reading/Discussion Schedule

### W E E K 1 : Introduction

- T Sept. 2** Course overview and introduction.
- Th Sept. 4** \_\_\_Gloria Steinem, "If Men Could Menstruate." *Ms. Magazine*, October 1978  
\_\_\_[E] Lois Gould, "X: A Fabulous Child's Story," In *Women's Voices, Feminist Visions*, Susan M. Shaw and Janet Lee, eds. (Mayfield 2001), 119-121  
\_\_\_Loren Cameron, "Portrait of a Man,"  
[http://www.findarticles.com/p/articles/mi\\_m1589/is\\_1999\\_May\\_25/ai\\_54775066/print](http://www.findarticles.com/p/articles/mi_m1589/is_1999_May_25/ai_54775066/print)  
\_\_\_[E] Lynda Birke, "In Pursuit of Difference: Scientific Studies of Women and Men," In *Gender and Science Reader*, Muriel Lederman and Ingrid Bartsch eds., (Routledge, 2001), 309-322.

### W E E K 2 : "Difference"

- T Sept. 9** \_\_\_[E] Maxine Baca Zinn and Bonnie Thornton Dill, "Theorizing Difference from Multiracial Feminism" In *Through the Prism of Difference*, (Allyn and Bacon, 1997), 23-29.  
\_\_\_[E] Sandra Bem "Transforming the Debate on Sexual Inequality: From Biological Difference to Institutionalized Androcentrism," In *Lectures on the Psychology of Women*, Joan C. Chrisler, Carla Golden, Patricia D. Rozee eds., (Mc-Graw Hill, 3<sup>rd</sup> edition), 3-15.
- Th Sept. 11** \_\_\_[E] Teresa L. Arnott & Julie A. Matthaei, "Race, Class, Gender and Women's Works: A Conceptual Framework" in *Race, Gender and Work: A Multi-cultural Economic History of Women in the United States.*, Teresa Amott & Julie Mattaei eds., (South End Press, 1996), 11-28.  
\_\_\_Sam Roberts, "For Young Earners in Big City, a Gap in Women's Favor," NYT, 8/3/07, <http://www.nytimes.com/2007/08/03/nyregion/03women.html?pagewanted=print>

### W E E K 3 : Nature v. Culture / Biological v. Social I

- T Sept. 16** \_\_\_ Anne Fausto-Sterling, "The Five Sexes: Why males and females are not enough." *The Sciences* 33(2): 20-25, 1994: <http://www.neiu.edu/~lsfuller/fivesexes.htm>  
\_\_\_ In-class screening: *Middle Sexes: Redefining He and She* (2006)
- Th Sept. 18** **Guest lecture by Dr. Brett-Genny Janiczek Beemyn, Director of the Stonewall Center**  
\_\_\_[Text] Fausto-Sterling, Ch. 1, "Dueling Dualisms," 1-29; Ch. 2, "'That Sex Which Prevailleth'," 30-44.

### W E E K 4 : Nature v. Culture / Biological v. Social II

- T Sept. 23** \_\_\_[Text] Fausto-Sterling, Ch. 3, "Of Gender and Genitals: The Use and Abuse of the Modern Intersexual," 45-76; Ch. 4, "Should There Be Only Two Sexes?" 78-114.
- Th Sept. 25** **Writing Assignment #1 Due.** (Graves article)  
\_\_\_ Visit the Eugenics Archive: <http://www.eugenicsarchive.org/eugenics/>  
\_\_\_ Jonathan Marks, "A Feckless Quest for the Basketball Gene," NYT, 4/8/00  
<http://www.uncc.edu/jmarks/pubs/feckless.html>  
\_\_\_[E] Joseph Graves, "The Social Construction of Race and Sports," In *The Race Myth: Why We Pretend Race Exists in America* (Dutton, 2004).

## W E E K 5 : Biological Determinism v. Social Constructivism

- T Sept. 30**     **Writing Assignment #1 Due.** (Bederman article)  
\_\_\_[E] Ruth Bleier, "Sociobiology, Biological Determinism and Human Behavior," In *Science and Gender: A Critique of Biology and Its Theories on Women* (Pergamon Press, 1984), 15-48.  
\_\_\_[E] Gail Bederman, "Remaking Manhood through Race and 'Civilization,'" In *Manliness and Civilization* (University of Chicago Press, 1995), 1-44.
- Th Oct. 2**     \_\_\_[E] National Academy of Sciences, "Methods and Values in Science", In *Racial Economy of Science*, Sandra Harding ed. (Indiana University Press, 1993).  
\_\_\_Handout: "The Iceland Exception: A Land Where Girls Rule in Math," Time, March 7, 2005.

## W E E K 6 : "Good Science" v. "Bad Science"

- T Oct 7**     \_\_\_[E] Richard Lewontin, "Parts and Wholes: Causes and Effects." In *The Triple Helix: Gene, Organism and Environment* (Harvard University Press, 2001).  
\_\_\_[E] Ruth Hubbard, "Science, Facts and Feminism," In *Women, Science and Technology*, Mary Wyer et al eds. (Routledge, 2001), 153-160.  
\_\_\_[E] Garland Allen, "Science Misapplied: The Eugenics Age Revisited." *Technology Review* 29, Aug/Sep 1996.
- Th Oct. 9**     Library Orientation Day. Meet in our regular classroom, Tobin 204.

## W E E K 7 : Intersectionality: Race, Gender, Race, Class, Sexuality, Nation

- T Oct. 14**     NO CLASS-MONDAY SCHEDULE
- Th Oct. 16**     **Guest lecture by R. Morgan Griffin, science writer for Web M.D. (webmd.com)**  
\_\_\_Lisa H. Weasel, "Feminist Intersections in Science: Race, Gender, and Sexuality through the Microscope," *Hypatia*, vol. 19, no. 4 (Wtr 2004), 183-193.  
\_\_\_Handout: Sandra Steingraber, "Animals" (excerpt) from *Living Downstream* (Vintage, 1997), 118-123.

## W E E K 8 : Racial Formation / Racial Fabrication

- T Oct. 21**     **Writing Assignment #2 Due.**  
\_\_\_Evelynn M. Hammonds, "New Technologies of Race," in Jennifer Terry, Melodie Calvert, eds., *Processed Lives: Gender and Technology in Everyday Life* (Routledge), 107-122.  
\_\_\_[http://www.pbs.org/race/000\\_General/000\\_00-Home.htm](http://www.pbs.org/race/000_General/000_00-Home.htm)  
\_\_\_Read: Interview with Richard C. Lewontin  
[http://www.pbs.org/race/000\\_About/002\\_04-background-01-04.htm](http://www.pbs.org/race/000_About/002_04-background-01-04.htm)  
\_\_\_In-class screening: *Race: The Power of An Illusion*

- Th Oct. 23** \_\_\_[E] Patricia Hill Collins, "Toward a New Vision: Race, Class, and Gender as Categories of Analysis and Connection," In *Women's voices, Feminist Visions*, Susan M. Shaw and Janet Lee, eds. (Mayfield, 2001), 119-121.
- \_\_\_[E] Michael Omi and Howard Winant, "Racial Formation," In *Racial Formation in the United States: From the 1960s to 1990s* (Routledge, 1994), 53-76.
- \_\_\_[E] Anne Fausto Sterling, "Gender, Race, and Nation." In *Deviant Bodies*, Jennifer Terry and Jacqueline Urla eds. (IUP, 1995), 19- 42.

### W E E K 9 : Changing Conceptions of the Body—General Frameworks

- T Oct. 28** \_\_\_[E] Gerald Tortora and Sandra Grabowski, "An Introduction to the Human Body," In *Principles of Anatomy and Physiology*, 10<sup>th</sup> ed., John Wiley & Sons, 2003. 1-11.
- \_\_\_[E] Londa Schiebinger, "The Anatomy of Difference: Fixing Racial and Sexual Types." In *Nature's Body: Gender in the Making of Modern Science* (Beacon Press, 1993), 115-142.
- \_\_\_[E] George W. Stocking, "The Turn-of-the-Century Concept of Race," *Modernism/Modernity* 1.1, 1994, 4-16.
- \_\_\_[E] Nancy Leys Stepan, "Race and Gender: The Role of Analogy in Science." *The Racial Economy of Science: Toward A Democratic Future* (IUP, 1993), 359-376.
- \* Optional/recommended reading:
- \_\_\_[E] Jennifer Terry, "Modernity and the Vexing Presence of Homosexuals," In *An American Obsession: Science, Medicine and Homosexuality in Modern Society* (Chicago UP), 27-39.

**Th Oct. 30** MIDTERM EXAM

### W E E K 10 : Changing Conceptions of the Body—Brains and Skeletons

- T Nov. 4** \_\_\_[E] Gerald Tortora and Sandra Grabowski, "Brain," In *Principles of Anatomy and Physiology*, 10<sup>th</sup> ed. (John Wiley & Sons, 2003), 452-457.
- \_\_\_[Text] Fausto-Sterling, Ch. 5, "Sexing the Brain: How Biologists Make a Difference," 115-145.
- \_\_\_Stephen Jay Gould, "The Geometer of Race," *Discover*, November, 1994  
<http://www.greeninformation.org/The%20Geometer%20of%20Race.htm>
- Th Nov. 6** \_\_\_[E] Gerald Tortora and Sandra Grabowski, "Skeletal System," In *Principles of Anatomy and Physiology*, 10<sup>th</sup> ed. (John Wiley & Sons, 2003), 187-215.
- \_\_\_[E] Londa Schiebinger, "Skeletons in the Closet: The First Illustrations of the Female Skeleton in the Eighteenth Century Anatomy." In *The Making of the Modern Body*, Catherine Gallagher and Thomas Laqueur eds. (U. of California Press, 1987), 42-82.

### W E E K 11 : Changing Conceptions of the Body—Hormones and Genes

**T Nov. 11** NO CLASS –VETERANS DAY HOLIDAY

- W Nov. 12** \_\_\_[E] Gerard Tortora and Sandra Grabowski, "Reproductive System," *Principles of Anatomy and Physiology*, Wiley, 2003: 1028-1046.
- (Tues. schedule) \_\_\_[Text] Fausto-Sterling, Ch. 6, "Sex Glands, Hormones, and Gender Chemistry" and Ch. 7, "Do Sex Hormones Really Exist?"

\_\_\_ [E] Emily Martin, "Premenstrual Syndrome, Work Discipline, and Anger," In *The Woman in the Body: A Cultural Analysis of Reproduction* (Beacon Press, 2001), 92-112.  
\_\_\_ Kathleen O'Grady, "Is Menstruation Obsolete?" *thirdspace*, Volume 2, Issue 1, 2004.  
<http://www.thirdspace.ca/articles/ogrady.htm>  
\_\_\_ Sapolsky, Robert. "The Trouble with Testosterone," from *The Trouble With Testosterone*, (Scribner, 1997), 147-159.

**Th Nov. 13** \_\_\_ <http://www.pbs.org/wnet/aalives/> (Henry Louis Gates' "African-American Lives")  
\_\_\_ <http://www.dnaancestryproject.com/> (DNA Ancestry Project)  
\_\_\_ Larry Adelman, "Race and Gene Studies: What Differences Make a Difference?"  
[http://www.pbs.org/race/000\\_About/002\\_04-background-01-02.htm](http://www.pbs.org/race/000_About/002_04-background-01-02.htm)  
\_\_\_ [E] Ruth Hubbard and Elijah Wald, "A Brief Look at Genetics" 39-57 and "Inherited Tendencies: Behaviors." (108-117.) In *Exploding the Gene Myth* (Beacon Press, 1997).  
\_\_\_ Richard Lewontin, "The DNA Era," *GeneWatch: Council for Responsible Genetics*, <http://www.mindfully.org/GE/2003/DNA-Era-Lewontin1jul03.htm>

### W E E K 12 : Reproduction—Past, Present, and Future

**T Nov. 18** \_\_\_ [E] Gerard Tortora and Sandra Grabowski, "Reproductive System," *Principles of Anatomy and Physiology*, Wily, 2003: 1012-1027.  
\_\_\_ [E] Dorothy Roberts, "Introduction," In *Killing the Black Body: Race, Reproduction, and the Meaning of Liberty* (Pantheon Books, 1997).  
\_\_\_ Ruth Hubbard and Stuart Newman, "Yuppie Eugenics," *Z Mag*, March 2002, <http://www.zmag.org/zmag/viewArticle/18020>  
\_\_\_ [E] Richard Hayes, "The Science and Politics of Genetically Modified Humans" *World Watch*, July/August 2002, 11-12.  
\_\_\_ [E] Judith Levine, "What Human Genetic Modification Means for Women," *World Watch*, July/August 2002.

**Th Nov. 20** **Guest lecture by Dr. Danielle Bessett, Ellertson Fellow, Ibis Reproductive Health**  
\_\_\_ [E] Dorothy Nelkin and Susan Lindee, "Good Genes and Bad Genes: DNA in Popular Culture," In *The Practices of Human Genetics*, Michael Fortun and Everett Mendelsohn, eds. (Kluwer Press, 1999), 155-167.

### W E E K 13 : Individual Research / Thanksgiving Week

**T Nov. 25** NO CLASS—Work with your partner on Writing Assignment #3.  
Email your Assignment #3 topic to Prof. Strunk by noon.

**Th Nov. 27** NO CLASS –THANKSGIVING HOLIDAY

### W E E K 14 : Bodies and Health

**T Dec. 2** \_\_\_ [E] Emily Martin, "Historical Overview," 5 In *Flexible Bodies*, Beacon Press, 1994.  
\_\_\_ [E] Angela Davis, "Sick and Tired of Being Sick and Tired: The Politics of Black Women's Health," In *The Black Women's Health Book* (Seal, 1994), 18-26.  
\_\_\_ Nancy Krieger, "If "race" is the answer, what is the question?"  
<http://raceandgenomics.ssrc.org/Krieger/>

- Th Dec. 4**      **Writing Assignment #3 Due. (Ethnography of “Good Health”)**  
 \_\_\_[E] Eileen Nechas and Denise Foley, “How Women Became Invisible” (13-17) and  
 “Wanted: Volunteers for Medical Research, Women Need Not Apply” (21-37) In  
*Unequal Treatment* (Simon and Schuster, 1994).  
 \_\_\_[UMass Online] Nancy Worcester, “Hormone Replacement Therapy (HRT): Getting  
 to the Heart of the Politics of Women’s Health,” *NWSA Journal*, Vol. 16, NO. 3, Fall  
 2004, 56-69.  
 \_\_\_[E] Nancy Krieger and Mary Bassett, 1993. “The Health of Black Folk: Disease,  
 Class, and Ideology in Science.” In *Racial Economy of Science*, Sandra Harding ed.  
 (IUP, 1993).

<b>W E E K 15 : What Should We Do With “Difference”?</b>
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- T Dec. 9**      \_\_\_[Text] Fausto-Sterling, Ch. 9, “Gender Systems: Toward a Theory of Human  
 Sexuality,” 233-255.  
 \_\_\_[UMass Online] Philomena Essed and David Theo Goldberg, “Cloning Cultures: the  
 Social Injustices of Sameness,” *Ethnic and Racial Studies*, Vol. 25, No. 6, 2002, 1066-  
 1082.

- Th Dec. 11**      Course review. Final exam preparations.

<b>Final Exam: Date TBA.</b>
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**→ Course Structure**

This is a General Education course. In keeping with the goals of the General Education Council, it is intended to sharpen students’ critical thinking and evaluation skills and to give them opportunity to apply those skills in a manner beneficial both to their professional and personal futures. Introductory courses can be both exciting and frustrating as they cover so many topics in a single semester. Bear in mind that we will never be totally finished with any one topic in this class. Certain themes will carry over into subsequent areas of inquiry. Taken together, the readings will help you to weave together multiple strands of critical thought, drawing connections and contrasts among different authors and analytical approaches. It is your job to prepare yourself to think critically, to articulate ideas clearly, and to listen attentively and respectfully to your classmates, who may have perspectives quite different from your own. This is a large class, but I do want to hear from you as much as possible. A part of each class meeting will be run seminar-style, which means that it will be based on class discussion and interactive learning exercises bracketed by a pair of short lectures. We may occasionally jumpstart our discussions with a pop quiz. Therefore, you must come to class having read and having read *well*.

**→ Readings**

Reading well means taking detailed notes on all of the readings assigned *and* the occasional guest lecture and film. (You will also be “reading” these, after all, and not merely taking them in as forms of passive entertainment.) Your course notes are invaluable. They greatly enhance comprehension and also elevate the level of our class discussions. (When you are reading for multiple classes, you know how essential notes are for jogging your memory about a particular text under discussion.) A set of reliable reading notes also makes paper writing far, far easier than it would be if you had conjure an article from memory or re-enter the readings “cold.” In our class meetings, we will frequently parse specific sections of what we have read, so **you must always bring to class the text or articles to be discussed that day.** \* A Note on E-reserve articles: As course readers have become more and more expensive, e-reserves are now the most economical way to assemble readings for class. **You are required to print out all e-reserve articles so that you can bring them to class.** If you do not have access to a printer, OIT will print them out for you for a fee. If you find yourself having a problem with this system, you must let me know **BEFORE** the day that readings are due.

### → Participation / Short homework assignments / In-class work

Your class participation grade will be based on your performance on the quality of your participation in class, which includes bringing to class good articles or questions, as well as your participation in SPARK-based discussions. You will almost certainly improve your participation grade by reading each Tuesday's Science Times at [www.nyt.com](http://www.nyt.com), but articles shared from other sources are also most welcome. (We will create a special section on SPARK to post relevant articles of interest.) I expect that **each student will contribute at least one article over the course of the semester**. Being absent or late to class will adversely affect your grade. You may not miss screenings or guest lectures without the prior permission of the professor or without a serious reason for doing so. **Students with three or more unexcused absences will automatically have their grade drop by at least one letter grade.**

### → Quizzes

Quizzes are unannounced. They are designed to test and reinforce your comprehension of the assigned readings.

### → Written Assignments

Detailed instructions for each of the three written assignments are attached to this syllabus and also posted to the SPARK sites. The deadlines for these assignments are not negotiable. Each is worth 10 percent of your grade.

### → Exams

The exams are bluebook exams written in the classroom in response to essay questions. The midterm exam will be based on all course material from the first half of the semester. The final exam will be cumulative, but with an emphasis on material from the second half of the semester.

### → Special Opportunities

Occasionally, the issues we cover in this class will overlap with topics that you are studying in your biology, history, political science or [fill-in-the-blank] classes. Content related to WOST 290A may also appear in the news or in contemporary political debates, or they may be the subject of popular culture-mediated critiques. I encourage you to be on the lookout for such intersections, and to share them with the class when appropriate. We are lucky to be in the Five College area, in which we could attend a special lecture or event just about every night of the week. On our SPARK site, I'll keep a running list of events that are relevant to this class. Please feel free to notify me of any such events or student opportunities that I might have missed.

### → Deadlines

Turn in all written assignments on the due date. Except with prior approval of the professor or in the case of extreme emergencies, **late assignments will not be accepted.**

### → Do I Need to Proofread?

The answer is yes. Sloppy writing detracts mightily from your argument. We all make honest mistakes. But it is disrespectful to submit hastily prepared work to your professor and peers.

### → Academic Honesty

Academic dishonesty will not be tolerated. Academic dishonesty includes, but is not limited to, cheating, fabrication, plagiarism, and facilitating dishonesty (knowingly helping another student to cheat). You can review University's official policy on academic honesty here: <http://www.umass.edu/umhome/policies/honesty.html>.