



**WOST 297B: RACE, GENDER & SCIENCE
SPRING 2009
Banu Subramaniam**

Tu, Th 9.30-10.45; Bartlett 3

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I. Course Description

At the beginning of the twenty-first century, science is a central and critical institution and it is the idiom/metaphor of our times. What is science? Who defines it? Who shapes it? How does our culture evaluate “good” and “bad” science, “basic” research and “useful” research? Who determines these? Who gets to practice science? How does the institution of science function? Is there a scientific method? If so, what is it and what makes it distinct? What impact has science had historically and continue to have in the present, on culture, society, politics and economics? This course is designed to explore the intersections of gender, race, class, sexuality, science, and technology. We will explore the cultural studies of science including the historical, philosophical, sociological, anthropological and literary studies of science. How is science related to the larger political, cultural and social contexts? We will examine how science has grown to be the center of our cultural visions and imaginations and what that means for our futures.

II. Course Readings

Available at *Food for Thought Books, E. Pleasant Street, Amherst*

Text: *Women, Science, and Technology*, Mary Weyer, Mary Barbercheck, Donna Geisman, Hatice Örün Öztürk, and Marta Wayne eds., 2nd edition, Routledge 2009. (*referred to as Text*)

E-Reserves: Additional Readings (*referred to as E-Reserves*)

Umass Online: *Articles available from the Umass library system online (referred to as Umass Online)*

Web Articles: Additional readings online (*referred to as Web*)

Ereserve articles are available online through the library **electronic reserves**. Enter “Subramaniam” as instructor or WOST 297B under the listed courses and enter the password: “science”

SPARK: We will use SPARK throughout the course. Surprise extra credit assignments, news and information will be posted on SPARK. Once you register for the course, you will automatically be added to the course on SPARK. Use your OIT username and password to sign into the course. Please contact OIT if you have any problems.

Students are also required to read the Science Times of the New York Times, published as a section of the paper every Tuesday. You can access this through the NYT website (www.nytimes.com) - We will discuss it every Thursday during class.

III. Requirements

Class Participation: The quality of the course, and the value of the experience for all of us, depends upon careful preparation for class by each one of us. It is imperative that you attend all classes, complete the reading assignments before class, and be prepared to contribute to the class discussion. Your grade will be based on the quality (not to be confused with quantity) of your participation in class throughout the semester (15% of your grade). Attendance is required. More than three unexcused absences will result in a reduction of at least one letter grade.

Written Requirements: There will be four written assignments. Content and form of the essays will be discussed in class.

1. A take home mid term exam due 3/3 (15%)
2. Analytic essay I (4-5 pages) due in class 3/5 (20%) and a critical evaluation due 3/12 (10%)
3. Analytic essay II due 5/5 (4-5 pages) (20%) and a critical evaluation due 5/12 (10%)
4. In class writing assignments (quizzes and short essays) (10%)

IV. Schedule of Readings

WEEK 1: INTRODUCTION

January 27 – In the News

[Web] Evolution war still rages 200 years after Darwin's birth, Jan 26, 2009:

http://news.yahoo.com/s/mcclatchy/20090126/sc_mcclatchy/3153454

[Web] Would you take a DNA test? *Chicago Tribune*, Oct 5, 2005:

<http://www.racesci.org/racescinow/health,disease,%20and%20racial%20medicine/7.html>

[Web] Finger Size May Predict Financial Success, <http://www.msnbc.msn.com/id/28627355/>

[Web] Leapin' Lizards: Lesbian reptiles act like males. *Time*, February 19, 1980

<http://www.time.com/time/magazine/article/0,9171,921830,00.html>

[Web] A Finger on Sexuality: <http://news.bbc.co.uk/2/hi/science/nature/695142.stm>

[Web] The first female crash dummy: <http://www.americanchronicle.com/articles/view/4777>

[Web] Obama effect: http://www.nytimes.com/2009/01/23/education/23gap.html?_r=1&ref=politics

[Web] Surrogacy Center in India: <http://indiasurrogacy.com/>

January 29 – What is Science?

[Video] *Secret of the Psychics*

[Web] Committee on the Conduct of Sciences, National Academy of Sciences, 1989. "On Being a Scientist," *National Academy Press*, Washington DC, pp. 1-22:

<https://www.mnstate.edu/provost/Ethics&Science.pdf>

WEEK 2: EDUCATION AND SCIENTIFIC CAREERS

February 3 - Educating Women: Out of the Frying Pan...

[Text] Introduction and Keller (1-30)

February 5 - Educating Women: Out of the Frying Pan...(contd.)

[Text] Sands, Subramaniam, Horn (31-49)

WEEK 3: CULTURES OF SCIENCE

February 10 - Careers...And into the Fire

[Text] Wenneras & Wold, Rose (50-71)

February 12 - Careers...And into the Fire (contd.)

[Text] Lee, Wayne (72-92), Intro (93-100)

[Web] Cornelia Dean, "A Conversation with Ben A. Barres: Dismissing Sexist Opinions About a Women's Place," *New York Times*, June 18, 2006:

<http://www.nytimes.com/2006/07/18/science/18conv.html?ex=1310875200&en=d0825d45a981dd62&ei=5090&partner=rssuserland&emc=rss>

WEEK 4: CONSTRUCTING DIFFERENCE

February 17 – Gender

[Web] Anne Fausto-Sterling, "The Five Sexes: Why males and females are not enough." *The Sciences* 33(2): 20-25: <http://frank.mtsu.edu/~phollowa/5sexes.html>

[Web] Anne Fausto-Sterling, "The Five Sexes Revisited," *The Sciences*, Jul/Aug2000:

<http://www.neiu.edu/~lsfuller/5sexesrevisited.htm>

[EReserves] Alice Dreger, "Gender Identity Disorder in Childhood: Inconclusive Advice to Parents," *Hastings Center Report*, Volume 39, Number 1, January-February 2009, pp. 26-29

February 19 – Race

[EReserves] Michael Omi and Howard Winant, "Racial Formation," In *Racial Formation in the United States: From the 1960's to 1990's*. Routledge, 1994., 53-76.

[Web] Larry Adelman, "Race and Gene Studies: What Differences make a difference?"

http://www.pbs.org/race/000_About/002_04-background-01-02.htm

[UMass Online] Troy Duster, "Race and Reification in Science," *Science*, vol., 307 – 18 Feb 2005

[UMass Online] Duna Fullwiley, "Race and Genetics: Attempts to Define the Relationship," *BioSocieties* (2007) 2, 221-237.

WEEK 5: CONSTRUCTING DIFFERENCE

February 24 - Gender

[Video] *Intellectual Parity: What Little Girls are Made of*

[EReserves] Londa Schiebinger, "More Than Skin Deep: The Scientific Search for Sexual Difference." In *The Mind Has No Sex*, Harvard University Press. 1989.

[EReserves] Emily Martin, "The Egg and the Sperm: How Science has Constructed a Romance Based on Stereotypical Male-Female Roles."

February 26 - Race

[Video]: *Race the Power of an Illusion*

[Web] Video Website: http://www.pbs.org/race/000_General/000_00-Home.htm

[Web] Stephen Jay Gould, "The Geometer of Race," *Discover*, November, 1994

<http://www.greeninformation.org/The%20Geometer%20of%20Race.htm>

[Umass Online] Gisli Palsson, "How Deep is the Skin? The Geneticization of Race and Medicine," *BioSocieties* 2007, 2, 257-272.

[Web] **Optional:** A Debate on Race: <http://raceandgenomics.ssrc.org/>

WEEK 6: CONSTRUCTING DIFFERENCE - SEXUALITIES

March 3 - Sexualities

[Text] Suzanne Kessler (205-218)

[EReserves] Alice Dreger, "Sex Beyond the Karyotype," In *Controversies in Science and Technology: From Climate to Chromosomes*, Kleinman, Karen Cloud-Hansen, Christian Mtt, and Jo Handesman eds., Mary Ann Liebert Inc. Publishers, 2008

[EReserves] William Byne, 1994. "The Biological Evidence Challenged." *Scientific American*, May 1994, pp. 50-55.

[EReserves] Anne Fausto Sterling, "Gender, Race, and Nation." In *Deviant Bodies*, Jennifer Terry and Jacqueline Urla eds., Indiana University Press, 1995, 19- 42.

[EReserves] "Finally Buried With Honor in Her Native Land." *New York Times*, August 10, 2002.

[Umass Online] Optional- Aaron T. Norton and Ozzie Zehner, "Which Half is Mommy?: Tetragametic Chimerism and Trans-Subjectivity" *Women's Studies Quarterly*, Volume 36, Numbers 3 & 4, Fall/Winter 2008, pp. 106-125

March 5 – Sexualities (contd..)

[Umass Online] Jennifer Terry, "Unnatural Acts In Nature: The Scientific Fascination with Queer Animals." *GLQ* 6:2-151-193

[E-Reserves] Jennifer Terry, "Modernity and the Vexing Presence of Homosexuals," In *An American Obsession: Science, Medicine and Homosexuality in Modern Society*, Chicago UP, 27-39.

ANALYTIC PAPER I DUE – March 5: For this essay, you are free to pick a topic of your choice. Reflect on the content we have learnt in class to this point. Choose two or three points that stand out for you to help focus your responses and/or critique and write a critical analysis on those points - take risks, and incorporate your ideas about the subjects, but remember to include the content from the class readings. Discuss insights you have gained and the limitations in the analyses. I want to know that you have read, understood, and analyzed the class reading material. (5 pages)

WEEK 7 NATURE VERSUS NURTURE

March 10– Framing the debate

[Web] Stephen Pinker, "My Genome, Myself, *New York Times*, January 11, 2009:

<http://www.nytimes.com/2009/01/11/magazine/11Genome-t.html?scp=7&sq=stephen%20pinker&st=cse>

[Web] Richard Lewontin, "The DNA Era," *GeneWatch: Council for Responsible Genetics*,

<http://www.mindfully.org/GE/2003/DNA-Era-Lewontin1jul03.htm>

[EReserves] Stephen Jay Gould, "Dolly's Fashion and Louis's Passion." In *Clones and Clones: Facts and Fantasies About Human Cloning..* Martha C. Nussbaum and Cass R. Sunstein eds., W. W. Norton & Co. 1998, 41-53.

March 12– Debates contd.

[Text] Ruth Bleier (185-204)

[EReserves] Nancy Leys Stepan, 1993. "Race and Gender: The Role of Analogy in Science."

[EReserves] Maxine Baca Zinn and Bonnie Thornton Dill, "Theorizing Difference from Multiracial Feminism" In *Through the Prism of Difference*, Allyn and Bacon, 1997, 23-29.

[Umass Online] **Optional:** Janice Peck, Why We shouldn't be bored with the Political Economy versus Cultural Studies Debate, Cultural Critique, 64, Fall 2007, 92-126.

ANALYTIC PAPER I & EVALUATION DUE: Last week, you will have exchanged your paper with another student. Critically analyze and evaluate the paper. Has s/he understood the material? If yes, why? If not, why not? How could the student have further developed the paper? What grade would you give the paper? (2 page evaluation)

☺☺☺☺☺**WEEK 8: MARCH 17 AND 19 - SPRING BREAK**☺☺☺☺☺

WEEK 9 - FEMINIST SCIENCE AND TECHNOLOGY STUDIES

March 24 – Feminist STS

[Text] Intro (237-244), Anne Fausto Sterling (210-236), Emily Martin (343-360)

March 26 – Feminist STS (contd.,)

[Text] Intro (301-11) Evelyn Fox Keller (245-55), Linda Fedigan (56-70), Barbercheck (118-32)
[EReserves] Joan Fujimura, Troy Duster and Ramya Rajagoplan, "Race, Genomics and Disease: Question of Evidence, Matters of Consequence" *Social Studies of Science* 38/5 (Oct 2008) 643-656

WEEK 10: GENDER AND TECHNOLOGY

March 31

[Text] Intro (157-165) Rachel Maines (271-285), Wendy Faulkner (143-156), Carol Cohn (101-117)

TAKE HOME MIDTERM EXAM DUE

April 2

[Text] Anne Balsamo (286-300), Shruti Raina (322-342)

[Web] Nakamura, Lisa. "Race In/For Cyberspace: Identity Tourism and Racial Passing on the Internet." *Works and Days: Essays in the Socio-Historical Dimensions of Literature and the Arts*, Indiana, PA 13.1-2 (Spring-Fall 1995): 181-93.

<http://www.humanities.uci.edu/mposter/syllabi/readings/nakamura.html>

[Web] Race and Cyberspace: "Interview with Lisa Nakamura," <http://www.nettime.org/Lists-Archives/nettime-l-0405/msg00057.html>

[Web] Optional - Donna Haraway, 1991. "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century." *In Simians, Cyborgs, and Women: The Reinvention of Nature*. Routledge, pp. 149-181:

<http://www.stanford.edu/dept/HPS/Haraway/CyborgManifesto.html>

WEEK 11: REPRODUCTIVE POLITICS

April 7 – Why is Reproduction Political?

[Web] Dorothy Roberts, "Race, and the New Reproduction," In *Killing the Black Body: Race, Reproduction, and the Meaning of Liberty*, Pantheon Books, 1997.:

<http://www.geneticsandsociety.org/article.php?id=1993>

[Umass Online] Cynthia Daniels, and Janet Goldern, "Procreative Compounds: Popular Eugenics, Artificial Insemination, and the Rise of the American Sperm Banking Industry." *Journal of Social History* 38.1 2004, 5-27.

April 9 – The New Landscape of Reproduction

[Web] Alex Kucynski, "Her Body, My Baby: My adventures with a surrogate mom." NYT, Nov 30, 2008: http://www.nytimes.com/2008/11/30/magazine/30Surrogate-t.html?_r=1&scp=1&sq=her%20body,%20my%20baby&st=cse

[Web] Response to the Kucynski article: Letters to the Editor:

<http://query.nytimes.com/gst/fullpage.html?res=9502E0DB143AF937A25751C1A96E9C8B63&scp=2&sq=her%20body,%20my%20baby&st=cse>

[Web] Surrogacy Center in India: <http://indiasurrogacy.com/>

WEEK 12: POPULATION POLITICS

April 14 – Population discourse – Why does it matter?

[Text] Andrea Tone (166-184)

[EReserves] Betsy Hartmann, "Family Matters," in Introduction to Women's Studies, Inderpal Grewal and Caren Kaplan eds., Routledge, 2002: 118-122.

[Web] 10 Reasons to Rethink Population: <http://popdev.hampshire.edu/projects/dt/40>

[Web] Betsy Hartmann, Old Roots, New Shoots: Eugenics of the Everyday:

<http://popdev.hampshire.edu/projects/dt/47>

[Web] James Oldham, "Population-Environment Programs: Problematic Assumptions and Contradictory Approaches: <http://popdev.hampshire.edu/projects/dt/39>

[Web] Betsy Hartmann, Conserving Racism: The Greening of Hate at Home and Abroad: <http://popdev.hampshire.edu/projects/dt/27>

April 16 – Population and Demographics

Guest Speaker: Betsy Hartmann, Population and Development Program, Hampshire College

Week 13: BIOLOGICAL DETERMINISM AND THE POLITICS OF EUGENICS

Tuesday, April 21: Monday Class Schedule – NO CLASS

Thursday, April 25: Science Fiction

[Video] GATTACA

[Umass Online] "Exploding Race in GATTACA: Genetic Passing, Identity and the Science of Race," *Literature and Medicine* 23, No. 1, Spring 2004, 184-2000

[Umass Online] David Kirby, The Devil in Our DNA: "A Brief History of Eugenics in Science Fiction Films." *Literature and Medicine*, Volume 26, Number 1, Spring 2007, pp. 83-108

Week 14: EUGENICS – THEN AND NOW

Tuesday, April 28: Eugenics Now

[Web]: Eugenics Archive: <http://www.eugenicsarchive.org/eugenics/>

[EReserves] Garland Allen – The social and economic origins of genetic determinism: a case history for the American Eugenics Movement, 1900-1940 and its lessons for today, *Genetica* 99: 77-88, 1997.

[EReserves] Garland Allen Is a New Eugenics Afoot? Science vol 294, 5 Oct 2001

[Web] Ruth Hubbard & Sturat Newman, "Yuppie Eugencis," Z Mag 2002

<http://www.zcommunications.org/zmag/viewArticle/18020>

Thursday, April 30: Eugenics Now?

[EReserves] Sarah Franklin, "Drawing the Line at Not-Fully-Human: What We Already Know,"

The American Journal of Bioethics, Volume 3, Number 3, Summer 2003

[Umass Online] Shelley Tremain, "Reproductive Freedom, Self-Regulation, and the Government of Impairment in Utero," *Hypatia*, Volume 21, Number 1, Winter 2006, pp. 35-53

[Web] Darshan M. Sanghavi, "Wanting Babies Like Themselves, Some Parents Choose Genetic Defects" NYT, Dec 5, 2006:

<http://www.nytimes.com/2006/12/05/health/05essa.html?scp=1&sq=Wanting%20Babies%20Like%20Themselves&st=cse>

WEEK 15: ENVIRONMENTAL POLITICS – NATURE AND THE NATURAL

Tuesday, May 5: Politics of the Environment

[Text] Ruth Perry (312-321), Subramaniam (133-142)

[EReserves] Vandana Shiva, "Colonialism and the Evolution of Masculinist Forestry."

ANALYTIC PAPER II DUE

Thursday, May 7: Rethinking Nature

[Web] Michael Pollan, "Unhappy Meals," *NYT* Junaury 28, 2007:

<http://www.nytimes.com/2007/01/28/magazine/28nutritionism.t.html?scp=1&sq=unhappy%20m%20eals&st=cse>

[EReserves] William Cronon, "The Trouble with Wilderness; or, Getting Back to the Wrong Nature." In *Ucommon Ground: Rethinking the Human Place in Nature*. William Cronon ed., W. W. Norton & Co, 1996. 69-90.

WEEK 16 – CONCLUSION AND SUMMARY

May 12: Conclusion and Summary – Science and Democracy

[EReserves] Steve Epstein, "Democratic Science? AIDS Activism and the Contested Construction of Science" (35-61), *Socialist Review* (April-June 1991)

ANALYTIC PAPER II AND EVALUATION DUE

