

WOST 297B: RACE, GENDER & SCIENCE
SPRING 2002
Banu Subramaniam

Tu, Th 2:30 - 3.45; Dickinson 212
Office Hours: Tu, Th: 11-12 and by appointment, Bartlett 381
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I. Course Description

This course is designed to explore the intersections of gender, race, sexuality, science, and technology. We will explore the cultural studies of science including the historical, philosophical, sociological, anthropological and literary studies of science. What is science? 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? 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. 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 quarter. (Twenty percent of your grade). Attendance is required. More than three unexcused absences will result in a reduction of at least one letter grade.

Leading a Class discussion: Each student will lead the class discussion once during the quarter. During this session, the student will present additional materials than those assigned in the schedule of readings. Students will prepare discussion questions and additional readings in consultation with the instructor. (Ten percent of your grade)

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

1. an essay (4-5 pages) due in class Thursday, February 21 (10%)
2. an essay (4-5 pages) due in class Tuesday, March 14 (10%)
3. an essay (10 pages) due in class Tuesday, April 16 (20%)
4. a critical evaluation (2 pages) of a student paper due Tuesday, April 23 (10%)

Final Exam: There will be a take home final. (20% of your final grade).

III. TEXTS

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

* Sandra Harding, *The Racial Economy of Science: Toward A Democratic Future*. Indiana University Press, 1993. Indicated as (RES) in the schedule of readings.

* Octavia Butler, *Wild Seed*, Mass Market Paperback, 2001.

* Reader: A compilation of readings. Indicated as (Reader) in the schedule of readings. (Available at Collective Copies - S. Pleasant Street, Amherst)

Books and Reader are On Reserve in the Library and the Women's Studies Office, (Bartlett 208).

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) - free only on the day of publication or read it at the UMass or Amherst public library. We will discuss it every Thursday during class.

IV. SCHEDULE OF READINGS

WEEK 1: INTRODUCTION

January 29 - Introduction to the course

* Leapin' Lizards: Lesbian reptiles act like males. *Time*, February 19, 1980 (hand-out)

* Gay birds of a feather parent together at Israeli zoo, CNN, September 18, 1999 (hand-out)

January 31 - Background

* Carole Tavris, "Speaking of Gender," In *The Mismeasure of Woman: Why Women are Not the Better Sex, the Inferior Sex, Or the Opposite Sex*, 1992. New York: Simon & Schuster. 287-333. (Reader)

* Ruth Hubbard, "Have Only Men Evolved?" In *Biological Woman: The Convenient Myth*, Ruth Hubbard, Mary Sue Henifin Barbara Fried eds., Schenkman Publishing Co, 1982. 17-42. (Reader).

WEEK 2: DEFINITIONS

February 5 - Sex, Gender, Sexuality

* Anne Fausto-Sterling, "The Five Sexes: Why males and females are not enough." *The Sciences* 33(2): 20-25 (Reader)

* Londa Schiebinger, "The Private Life of Plants." In *Nature's Body: Gender in the Making of Modern Science*. Beacon Press, 1993, 11-40.

Feb 7 - Video

WEEK 3: DEFINITIONS

February 7- Racial Formations

* 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. (Reader).

* Gloria A. Marshall, "Racial Classifications: Popular and Scientific (RES)

Feb 11-Race

* S. L. Washburn, "The Study of Race." (RES)

* Frank B. Livingston, "On the Nonexistence of Human Races. (RES)

* Robert Schwartz, "Racial Profiling in Medical Research." *New England Journal of Medicine*, vol. 344, No. 18. May 3, 2001. 1392-93.

WEEK 4: CONSTRUCTING DIFFERENCE

February 12 - Anatomies

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

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

February 14- Anatomies (contd.)

* Steven Jay Gould, "American Polygeny and Craniometry before Darwin: Black and Indians as Separate, Inferior Species. (RES)

* Jennifer Terry, 1997. "The Seductive Power of Science in the Making of Deviant Subjectivity." In *Posthuman Bodies*, Judith Halberstam and Ira Livingston eds. Routledge, pp. 135-161 (Reader)

WEEK 5: BIOLOGICAL DETERMINISM

February 19 - Presidents Day (Monday Schedule)

Paper #1 Due Feb 21

February 21 - Biological Determinism

* Stephen Jay Gould, 1978. "Biological Potential versus Biological Determinism." In *The Sociobiology Debate*, Arthur L. Caplan ed. New York; Harper & Row, pp. 343-351. (Reader)

* Nancy Krieger and Mary Bassett, 1993. "The Health of Black Folk: Disease, Class, and Ideology in Science." (RES)

* Richard Lewontin, Steven Rose & Leon J. Kamin, "The Determined Patriarchy," in *Not in Our Genes: Biology, Ideology, and Human Nature*. 1984. Pantheon Books. 135-163 (Reader)

WEEK 6: THE SOCIAL PRACTICES OF SCIENCE

February 26: Demographics: Who Does Science?

* Aimee Sands, "Never Meant to Survive: A Black Woman's Journey - An Interview with Evelyn Hammonds." (RES: 239-249)

* Ronald T. Takaki, "Aesculapius Was a White Man: Race and the Cult of True Womanhood." (RES: 201-210)

* Susantha Goonatilake, "Modern Science and the periphery: The Characteristics of Dependent Knowledge." (RES: 259-275)

February 28 - Science as a Social Institution

* Evelyn Fox Keller, 1991, "The Wo/Man Scientist: Issues of Sex and Gender in the Pursuit of Science. In *The Outer Circle: Women in the Scientific Community*. Harriet Zuckerman, Jonathan R. Cole and John T. Bruer, eds. New York: Norton, pp. 227-239. (Reader)

* Sandra Harding, 1993. "Eurocentric Scientific Illiteracy - A Challenge for the World Community." (RES: 1-28)

WEEK 7: INTRODUCTION TO GENES AND GENETICS

March 5 - Mendelian Genetics

* Ruth Hubbard and Elijah Wald, "A Brief Look at Genetics" In *Exploding the Gene Myth*, Beacon Press, 1997. 39-57. (Reader)

* Joseph Graves, "Mendelism, the New-Darwinian Synthesis, and the Growth of Eugenics." In *The Emperor's New Clothes: Biological Theories so Race at the Millennium*. Rutgers University Press, 2001. 107-127. (Reader)

March 7 - Quantitative traits

* R. C. Lewontin, Steven Rose, and Leon J. Kamin, "IQ: The Rank Ordering of the World." (RES)

* Ruth Hubbard and Elijah Wald. "Inherited Tendencies: Behaviors." In *Exploding the Gene Myth*, Beacon Press, 1997. 108-117. (Reader)

WEEK 8: SPRING BREAK

WEEK 9: CASE STUDY: SOCIOBIOLOGY

March 12 -Sociobiology

* E. O. Wilson, 1978."Man: From Sociobiology to Sociology." In *The Sociobiology Debate*, Arthur L. Caplan ed. New York: Harper & Row, pp. 227-235. (Reader)

* Elizabeth Allen et al., 1978. "Against Sociobiology." In *The Sociobiology Debate*, Arthur L. Caplan ed. New York: Harper & Row, pp. 259-264. (Reader)

* Garland Allen, "Science Misapplied: The Eugenics Age Revisited." *Technology Review* 29, Aug/Sep 1996.

* Nancy Leys Stepan, 1993. "Race and Gender: The Role of Analogy in Science." (RES)

Paper #2 Due March 14

March 14 - Science and knowledge

* Carol Cohn, 1996. "Nuclear Language and How we Learned to Pat the Bomb." In

* *Feminism and Science*. Evelyn Fox Keller and Helen Longino, eds. Oxford: Oxford University Press, pp. 173-184. (Reader)

* Sharon Traweek, 1993. "Cultural Differences in High-Energy Physics: Contrasts between Japan and the United States." (RES : 398-407)

WEEK 10: SCIENCE FICTION

March 26 - Feminist Science Fiction

Octavia Butler, *Wild Seed*, Mass Market Paperback, 2001.

March 28 - Girl Toys

* Jacqueline Urla and Alan C. Swedlund, "The Anthropology of Barbie: Unsettling Ideals of the Feminine Body in Popular Culture." In *Deviant Bodies*, Jennifer Terry and Jacqueline Urla eds., Bloomington, Indiana University Press, 1995. (Reader)

* Suzanne de Castell and Mary Bryson, "Retooling Play: Dystopia, Dysphoria, and Difference," In *From Barbie to Mortal Kombat: Gender and Computer Games*. Justine Castell and Henry Jenkins eds. (article can be found online: www.educ.sfu.ca/gentech/retooling.html.)

WEEK 10: OBJECTIVITY AND TRUTH CLAIMS

April 2 -

* Anne Fausto-Sterling, 1987. "Society Writes Biology/Biology Constructs Gender." *Daedalus*. Fall (116): 61-76. (Reader)

* Donna Haraway, "The Bio-politics of a Multicultural Field." (RES)

* Robert Proctor. "Nazi Medicine and the Politics of Knowledge." (RES)

April 4 -

* James Jones, "The Tuskegee Syphilis Experiment." (RES)

* Phillida Bunkle. "Calling the Shots? The International Politics of Depo-Provera." (RES)

* Nancy Leys Stepan and Sander L. Gilman, "Appropriating the Idioms of Science: The Rejection of Scientific Racism." (RES).

WEEK 11: NATURE AND THE NATURAL

April 9 - Nature

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

* Jennifer Price, "Roadrunner Can't Read: The Greening of Television in the 1990's." in *Flight Maps: Adventures with Nature in Modern America*. Basic Books, 1999, 203-250.

April 11 - Science and the Environment

* Vandana Shiva, "Colonialism and the Evolution of Masculinist Forestry." (RES)

* Karl Grossman, "Environmental Racism." (RES)

WEEK 12: CASE STUDY - CLONING

Paper#3 Due April 16

April 16 - Clones & Clones

* Ian Wilmut, How to Clone. "Cloning for Medicine." Article at:
<http://www.sciam.com/1998/1298issue/1298wilmut.html>

* 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. (Reader)

* Richard Dawkins. "What's Wrong with Cloning." In *Clones and Clones: Facts and Fantasies About Human Cloning*. Martha C. Nussbaum and Cass R. Sunstein eds., W. W. Norton & Co. 1998, 54-66 (Reader)

April 18 - Consequences

We will explore two websites. Please carefully read and analyze the websites and be ready to discuss them in class: Dream Technologies International, Cones R Us: www.d-b.net/dti/ Dolly's Cloning Emporium: w3.nai.net/~tdiann/dolly.htm

Week 13: CONSTRUCTING IDENTITIES

Tuesday, April 23: Sexualities

* Simon LeVay, 1991. "A Difference in Hypothalamic Structure Between Heterosexual and Homosexual Men." *Science*, Volume 253, pp. 1034-1036. (Reader)

* Anne Fausto-Sterling, 1992. "Homosexual Brains" from: "Sex and the Single Brain." Addendum to the Second Edition, *Myths of Gender: Biological Theories About Women and Men*, Rev. Ed. NY: Basic, pp. 245-259 (Reader)

* William Byne, 1994. "The Biological Evidence Challenged." *Scientific American*, May 1994, pp. 50-55. (Reader)

* Leapin' Lizards, 1980. *Lesbian Reptiles Act Like Males*, Time, February 1980. (handout)

Thursday, April 25: Technological Tinkering

* Suzanne Kessler, 1990. "The Medical Construction of Gender: Case Management of Intersexed Infants." *Signs* Vol. 16, Number 1, pp. 3-26 (Reader)

* Dean Hamer and Peter Copeland, 1998. "Engineering Temperament" In *Living With Our Genes: Why They Matter More Than You Think*. Doubleday, pp. 295-316 (Reader)

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

Week 14: INTERROGATING SCIENCE

Tuesday, April 30: What is Science?

* Committee on the Conduct of Sciences, National Academy of Sciences, 1989. "On Being a Scientist," National Academy Press, Washington DC, pp. 1-22, (Reader)

Thursday, May 2: Movie

Week 15: THE FUTURE

Tuesday, May 7: Alternate Sciences

* Joseph Needham, 1993. "Poverties and Triumphs of the Chinese Scientific Traditions." (RES: 30-45)

* Martin Bernal, 1993. "Black Athena: Hostilities to Egypt in the Eighteenth Century." (RES: 47-60)

Thursday, May 9: Democratic Science

* Joseph Needham, 1993. "Science and Democracy: A Fundamental Correlation." (RES: 434-439)

* David Dickson, 1993. "Towards a Democratic Strategy for Science: The New Politics of Science." (RES: 472-482)

* Third World Network. 1993. "Modern Science in Crisis: A Third World Response." (RES: 484-518)

May 14: Conclusion and Summary