SYLLABUS
WOMEN AND SCIENCE
Spring 1998
BIOL 450

Instructor: Dr. Joan Braddock
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Office Hours: MWF 9:00-11:00 or by appointment

Course Credit: 3
Time: Tuesdays, 6-9 p.m.

DESCRIPTION

This course will broadly address the historical contributions and participation of women in science with an emphasis on the biological sciences. We will additionally discuss the factors affecting female participation in the sciences and how participation of women in the sciences might affect the manner in which science is done. We will focus on several questions including:
1) How have women historically contributed to the sciences? 2) How has the participation of women (or lack of participation by women) affected the historical development of science? 3) Do women do science differently than men? 4) What is the current status of women in science? and 5) What can be done to more fully integrate women in the sciences?

REQUIRED TEXTS


Photocopied readings- To be handed out during the semester. A $5 fee will be collected for these.

COURSE REQUIREMENTS

20% Written biography (2-3 pages)
10% Presentation of biography (10 minutes)
30% Research paper (7-10 pages)
10% Presentation of research topic (10 minutes with 5 minutes for questions)
10% Participation in discussions and attendance
15% Daily questions relating to discussion. Two questions daily with short answers to be used in class discussion and handed in.
5% Oral presentation as discussion leader.
The first writing assignment is a biography. You should think of a topic early in the semester. I encourage you to write about less well-known women. I will OK each proposed subject so that there is no repetition in the class. The written biography will be handed in as a draft (Note: NOT a rough draft; this draft should be your best effort). Two student reviewers will edit this draft first. The biography will then be revised and handed in to me. I will edit each biography and schedule a conference to discuss the biography with the author. The biography will then be edited, turned back in and graded. We will attempt to make these biographies as polished as possible as they will be incorporated in a class booklet. The biography material will also be presented in an oral format. This brief talk (10 minutes) will be graded on both content and quality of the presentation. Oral and written skills are essential for everyone to develop no matter what your future plans are. It is not very useful to be an excellent scientist (or whatever your discipline is) but not be able to convey information to other people.

A second formal writing project is a research paper due near the end of the semester. The topic can be any research topic related to women in science but again you should check out your idea with me before beginning. It is expected that substantial thought will go into development of this paper; it is worth 30% of your final grade. The subject matter from your research paper will also be presented in a formal talk of about 10 minutes in duration. An additional 5 minutes will be scheduled for a question and answer period following the research talk.

Many class periods will be devoted to discussions of assigned readings. To help you in thinking about these discussions you will prepare 1-2, 3x5 inch cards BEFORE class for each discussion. On these cards you will prepare discussion questions or thoughts to bring up in discussion about the readings. These cards will be turned in at the beginning of class so you may need to make a second set of notes for yourself. The success of this course is reliant on student preparation and participation. Because of this I will take attendance and keep track of participation. To facilitate discussion I will often break the class into smaller groups with specific assignments from the readings. Smaller groups will typically break out for about 20-30 minutes. A leader from each small group will prepare a brief summary of the thoughts discussed by that group. These summaries are then related back to the class in brief (about 5 minute) talks to the class. You will need to plan on taking the responsibility of being a group leader several times during the semester. One of these impromptu talks will be graded.

A first objective of this course is that, through focusing on the role of women in science, each student will have explored the historical values of science and the development of the manner in which science is done. A second objective is to develop critical thinking skills through analysis of readings and use of discussion. It is also hoped that each student will have improved their ability to communicate their thoughts both in oral presentation and writing.
TENTATIVE SCHEDULE

CLASS TOPIC

20 Jan. Introduction; Videos—(1) Science and Gender, an interview with Evelyn Fox Keller (2) Barbara McClintock

27 Jan. Status of women in science-- handouts
Historical perspectives in america: educating women-- Rossiter chap 1-2

03 Feb. Historical perspective: women’s work-- Rossiter chap 3-4
Historical perspective: the women’s movement-- Rossiter 5-6
BIOGRAPHY SUBJECT DUE TO ME

10 Feb. Historical perspective: employment-- Rossiter 7-9 (3 groups—Academia, government and industry; 1 chap each)
Historical perspectives: double standards-- Rossiter 10 + conclusions

17 Feb. Careers in Science Today—Academia, government and industry (handouts); BIOGRAPHY DUE to student reviewers

24 Feb. Sex differences in the brain (Video and/or guest); Biography back to author
Biological theories about women and men-- Fausto-Sterling chap 1-3

03 Mar. Presentations of Biographies (Group One); BIOGRAPHIES DUE TO ME
04 Mar. Presentations of Biographies (Group Two)
(Wed)

10 Mar. Presentations of Biographies; (Group One)
11 Mar. Presentations of Biographies; (Group Two)
(Wed)

SPRING BREAK

24 Mar. Biological theories about women and men-- Fausto-Sterling chap 4-7
RESEARCH PAPER TOPICS DUE TO ME

31 Mar. Science education (handouts)

07 Apr. Balancing career and family (handouts, guest panel)

14 Apr. Is there female science? (handouts)
Cracking the glass ceiling (handouts)

21 Apr. Research Topic Presentations (Group One)
22 Apr. Research Topic Presentations (Group Two)
(Wed)

28 Apr. Research Topic Presentations (Group One)
Closing Comments; FINAL PAPER DUE
29 Apr. Research Topic Presentations (Group Two)
(Wed) Closing Comments; FINAL PAPER DUE
WOMEN AND SCIENCE

PARTIAL BIBLIOGRAPHY-- there are many other applicable materials at the UAF library and at other campuses in Alaska.

Books


Bode, L. no date. Alaskan Women in Science and Social Studies. Library--level 2


Caplan, P. 1994. Lifting a Ton of Feathers (about women on campus). University of Toronto Press.


