SYLLABUS
WOMEN AND SCIENCE
Spring 1996
BIOL 450

Instructor: Dr. Joan Braddock
Office: 410B Irving
Phone: 474-7991 (work) 479-4071 (home)
E-Mail: ffjb@aurora.alaska.edu
Office Hours: MWF 9:30-11:30 or by appointment

Course Credit: 3
Time: T/Th, 9:40-11:10

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.

The following book was ordered and available but is not required for the course:

COURSE REQUIREMENTS

20% Written biography (2-3 pages)
5% Presentation of biography
30% Research paper (7-10 pages)
10% Presentation of research topic
15% Participation in discussions and attendance-- Must lead in at least one discussion
15% Daily questions relating to discussion. Two questions daily with short answers to be used in class discussion and handed in.
5% Short (5 minute) talk on societal views on science.
The first writing assignment is a biography. You should think of a topic early in the semester. I would 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). This draft will be edited first by two student reviewers. 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 (about 5 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 but not be able to convey your science 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 15 minutes in duration. An additional 5 minutes will be scheduled for a question and answer period following each 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 end of class. 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 is elected from each small group that 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. Remaining class time is spent discussing that day’s topic as a class. Each student will lead in a minimum of one group summary during the course of the semester.

Finally I would like each student to prepare a very short talk (about 5 minutes) on some aspect of societal views on science. These brief talks will occur at the beginning of class (one per class) and should provide a bit of thought or perspective. The research for these talks can be minimal-- for example, a summary of one interesting article would be appropriate.

It is hoped that by the end of the semester, 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. It is also hoped that each student will have improved their ability to communicate these thoughts both orally and in writing.
EVALUATION OF ORAL PRESENTATIONS

PRESENTATION (40%)

Timing (5)  __________

Opening (5) __________

Stage Manner/Enthusiasm __________

Visual Aids
   If present, were they good? __________
   If not, were they needed? __________

CONTENT

Originality of Topic (25) __________

Pertinence: were materials presented relevant to the topic? (20) __________

Usefulness/Significance (15) __________
TENTATIVE SCHEDULE

CLASS    TOPIC
18 Jan.  Introduction
23 Jan.  Status of women in science-- handouts
30 Jan.  Rachel Carson’s Silent Spring (Video)
01 Feb.  Historical perspective: women’s work-- Rossiter chap 3-4
06 Feb.  Historical perspective: the women’s movement-- Rossiter 5-6
          FIRST 5 MINUTE TALK (through 7 Mar)
08 Feb.  Historical perspective: employment-- Rossiter 7-9 (3 groups; 1 chap each)
13 Feb.  Historical perspectives: double standards-- Rossiter 10 + conclusions
15 Feb.  Panel Discussion; BIOGRAPHY DUE to student reviewers
20 Feb.  Sex differences in the brain (Video and/or guest); Biography back to author
22 Feb.  Biological theories about women and men-- Fausto-Sterling chap 1-2
27 Feb.  Presentations of Biographies; Biography due to me
29 Feb.  Presentations of Biographies
05 Mar.  Presentations of Biographies; Biographies returned to author
07 Mar.  Barbara McClintock (Video); Evelyn Fox Keller Interview (Video)

SPRING BREAK
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 Mar.</td>
<td>Biological theories about women and men -- Fausto-Sterling chap 3-4</td>
</tr>
<tr>
<td>21 Mar.</td>
<td>Biological theories about women and men -- Fausto-Sterling chap 5-6</td>
</tr>
<tr>
<td>26 Mar.</td>
<td>Biological theories about women and men -- Fausto-Sterling chap 7</td>
</tr>
<tr>
<td>28 Mar.</td>
<td>Panel Discussion</td>
</tr>
<tr>
<td>02 Apr.</td>
<td>Women and science education -- Rosser 1-2</td>
</tr>
<tr>
<td>04 Apr.</td>
<td>Women and science education -- Rosser 5-6</td>
</tr>
<tr>
<td>09 Apr.</td>
<td>Women and science education -- Rosser 7-8</td>
</tr>
<tr>
<td>16 Apr.</td>
<td>Balancing career and family -- handouts + guests</td>
</tr>
<tr>
<td>18 Apr.</td>
<td>Women and medical research -- handouts</td>
</tr>
<tr>
<td>23 Apr.</td>
<td>Science and women in other cultures -- handouts</td>
</tr>
<tr>
<td>25 Apr.</td>
<td>Research Presentations</td>
</tr>
<tr>
<td>30 Apr.</td>
<td>Research Presentations</td>
</tr>
<tr>
<td>02 May.</td>
<td>Research Presentations/Closing Comments; FINAL PAPER DUE</td>
</tr>
</tbody>
</table>

FINAL EXAM -- 8-10 am, Tuesday, May 7.