

HISTORY 380 - HISTORY OF WOMEN IN SCIENCE, TECHNOLOGY AND MEDICINE

AMY BIX - SPRING SEMESTER, 2005

Tuesday and Thursday, 11:00 a.m. to 11:50 a.m. – Lagomarcino W142
sections:

- 1: Thursday, 8:00 a.m. to 8:50 a.m. – Ross 126
- 2: Thursday, 10:00 a.m. to 10:50 a.m. – Heady 272
- 3: Friday, 8:00 a.m. to 8:50 a.m. - Ross 126
- 4: Friday, 10:00 a.m. to 10:50 a.m. – Heady 160

Amy Bix:

Office hours: Tuesdays, 2-4 p.m., and Thursdays 9-11 a.m., plus other times by appointment;

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T.A. - Karri Haen

Course website: <http://www.iastate.edu/~hist.380>

COURSE DESCRIPTION:

This course will explore the history of women in relation to the theory and practice of science, technology and medicine. Broad themes include how the development of educational systems and professions affected women over the centuries, and how scientific work, medical thinking and technological development have evolved in relationship to gendered issues. Over the past three decades, scholars of women's history have emphasized the importance of re-examining history with a new concentration on gender issues. Studies in the history of science, technology and medicine have most commonly focused on the roles and activities of men, yet women's relationship to these fields also deserves attention. Research has shown that women throughout history made significant contributions to science, technology, and medicine, despite barriers limiting their access to education and professionalization. In addition to making science, women have also been subjects of scientific thought; this course will examine the history of biological and psychological ideas about gender difference. Similarly, the course will consider women as subjects of medical practice and examine ways that the medical profession has perceived and treated female patients. Finally, the class will consider how technological changes over time have affected women's lives, both at home and in the workplace. The course will cover material up to the present, using a historical perspective to shed new light on current discussions about the gender dimensions of science, technology and medicine.

COURSE STRUCTURE:

This course includes two full-group meetings per week, plus one weekly small-group discussion section, attendance at which is **mandatory**. Sections will include discussions of assigned reading, viewing of films, and reviews for examinations, among other activities. Sections are also opportunities to ask questions about course procedures and about readings or lecture material.

There will be three exams in this course, two during the semester itself, plus a final. All students, *including graduating seniors*, are *required to take all exams*, including the *final*. Exams cover material presented in lectures, discussions, readings, and audio-visual material. Students must *bring blue books and a pen* to use on exams - points will be deducted for exams written in pencil or not in blue books! Standard ISU policies on academic dishonesty will be applied. Students are responsible for ensuring they complete all exams by the proper dates. Any exam not completed by semester's end will automatically convert to a zero, and failure to take the final risks course failure. Students experiencing difficulties should first consult the professor and T.A., but may also wish to use ISU's Academic Learning Lab or Tutoring Services. Before the first semester exam, we will distribute handouts giving helpful hints on how to study and prepare.

Your grade in this class will also depend on a series of brief in-class quizzes. During our Tuesday/Thursday lectures, on twelve occasions throughout the semester (unannounced ahead of time), we will pause for a five-minute quiz. These closed-book, closed-note quizzes will cover material from the current or previous week's reading assignment and from recent lectures. The format will be short and simple, roughly five questions per quiz, usually in true/false, multiple choice, or fill-in-the-blank format. Quizzes may turn up at the beginning of a lecture period, the end, or in the middle. There will be no make-up for any quiz missed, regardless of the reason; missed quizzes will receive a zero. However, at the end of the semester, you will be permitted to drop your two lowest quiz scores; the remaining ten will amount to your total quiz grade.

You will notice that each week's lecture includes overhead transparencies listing key concepts, names and dates, quotations, and other material. To save you frantic scribbling during class, we will try to post copies of this material on the web, through the website address above. Please remember, having these notes is **no substitute** for attending lecture yourself – they contain essential facts, but are **NOT** a full transcript of a lecture's information and ideas!

COURSE REQUIREMENTS AND GRADING:

1. Class participation - 10% of final grade:
 - a. Attendance;
 - b. Constructive participation in class discussion and weekly section meetings, evidence of having completed reading assignments, and other section activities;
2. In-class quizzes – total quiz grade equals 10% of final grade.
3. Two examinations (dates below) - 25% each:

Each exam will be in two parts:

Part I: in-class, closed-book, short writing/identifications section;

Part II: take-home, open-book essay question;

3. Final examination - 30% of final grade:
Combination of identification and short and long essay questions, closed-book, in-class.

REQUIRED BOOKS:

These books can be purchased in paperback (some available used) at university bookstores. Copies should also be available on library reserve.

1. Alic, Margaret; *Hypatia's Heritage: A History of Women in Science from Antiquity through the 19th Century*; Beacon, 1986.
2. Rossiter, Margaret; *Women Scientists in America: Struggles and Strategies to 1940*; Johns Hopkins Univ. Press, 1982.

Other readings, as noted in the weekly assignments below, will include articles placed on electronic reserve through the ISU Library. Short additional readings may occasionally be handed out in class.

TOPICS AND ASSIGNMENTS:

Tuesday, January 11 and Thursday, January 13 -

Course introduction; classical Greek views of women's nature and women's roles;

Tuesday, January 18 and Thursday, January 20 -

Aristotelian ideas and the Middle Ages;

ASSIGNMENT for discussion sections, week of 1/18:

- Alic, p. 1-49;

Tuesday, January 25 and Thursday, January 27 -

The Scientific Revolution;

ASSIGNMENT for week of 1/25:

- Alic, p. 50-107;

Tuesday, February 1 and Thursday, February 3 -

"Proper Ladies' Science": Activity and Exclusion to 19th Century;

ASSIGNMENT for week of 2/1:

- Alic, p. 108-147;

Tuesday, February 8 and Thursday, February 10-

19th Century Medical and Scientific Ideas about Women: Biology Dictates Limits;

ASSIGNMENT for week of 2/8:

- Paula Findlen, "Science as a Career in Enlightenment Italy," on reserve.
- Sally Kohlstedt, "In From the Periphery: American Women in Science, 1830-1880," on reserve.
- M. Susan Lindee, "The American Career of Jane Marcet's *Conversations on Chemistry*, 1806-1853," on reserve.

Tuesday, February 15 and Thursday, February 17 -

Women's Medical Issues and Treatment in the 19th Century;

ASSIGNMENT for week of 2/15:

- Londa Schiebinger, "Why Mammals are Called Mammals: Gender Politics in 18th C Natural History." on reserve.
- Carroll Smith-Rosenberg and Charles Rosenberg, "The Female Animal: Medical and Biological Views of Woman and her Role in 19th Century America," on reserve.
- Elizabeth Fee, "Nineteenth-Century Craniology: Study of the Female Skull," on reserve.
- Judith Leavitt, "Under the Shadow of Maternity: American Women's Responses to Death and Debility Fears in 19th Century Childbirth," on reserve.
- Linda Gordon, "Voluntary Motherhood: The Beginnings of Feminist Birth Control Ideas in the United States," on reserve.
- Stephen Jay Gould, "Carrie Buck's Daughter," on reserve.

EXAMINATION #1 coming up on Tuesday, March 1 !

Tuesday, February 22 and Thursday, February 24 -

Women's Colleges and Co-education: Opportunities and Obstacles;

ASSIGNMENT for week of 2/22:

- Rossiter, p. xv-50;
- Edward Clarke, *Sex in Education*, excerpts, 1873; material handed out in class.

EXAMINATION #1 coming up on Tuesday, March 1 !

Tuesday, March 1 and Thursday, March 3 -

EXAMINATION #1 on Tuesday, March 1 !

Women and the Practice of Science in the 19th Century;

ASSIGNMENT for week of 3/1:

- Alic, p. 148-191;

EXAMINATION #1 on Tuesday, March 1 !

Tuesday, March 8 and Thursday, March 10 -

Women's Roles in Science and Medical Practice into the 20th Century;

ASSIGNMENT for week of 3/8:

- Rossiter, p. 51-99.
- Regina Morantz, "Feminism, Professionalism, and Germs: Mary Putnam Jacobi & Elizabeth Blackwell," on reserve.

Tuesday, March 15 and Thursday, March 17 – spring vacation, no classes;

Tuesday, March 22 and Thursday, March 24 -

Women's Relationship With Changing Technologies;

ASSIGNMENT for week of 3/22:

- Rossiter, p. 100-159.
- Ruth Schwartz Cowan, "Less Work for Mother?" on reserve.
- Laura Shapiro, "Foes in Our Own Household," on reserve.
- Nancy Tomes, "Spreading the Germ Theory: Sanitary Science and Home Economics, 1880-1930," on reserve.

EXAMINATION #2 coming up on Tuesday, April 5 !

Tuesday, March 29 and Thursday, March 31 -

Women in Twentieth-Century Science, Engineering and Medicine, part I;

ASSIGNMENT for week of 3/29:

- Rossiter, p. 160-217;
- Helena Pycior, "Marie Curie's 'Anti-Natural Path': Time Only for Science and Family," on reserve.

EXAMINATION #2 coming up on Tuesday, April 5 !

Tuesday, April 5 and Thursday, April 7 –

EXAMINATION #2 on Tuesday, April 5 !

Women in Twentieth-Century Science, Engineering and Medicine, part II;

ASSIGNMENT for week of 4/5:

- Carroll Pursell, "Toys, Technology & Sex Roles in America, 1920-1940," on reserve.
- Martha Trescott, "Lillian Moller Gilbreth and the Founding of Modern Industrial Engineering," on reserve.
- Frank B. Gilbreth Jr and Ernestine Gilbreth Carey, *Cheaper by the Dozen*, excerpts; material handed out in class.
- Amy Sue Bix, "From 'Engineeresses' to 'Girl Engineers' to 'Good Engineers': A History of

Women's American Engineering Education," on reserve.
EXAMINATION #2 on Tuesday, April 5!

Tuesday, April 12 and Thursday, April 14 -

Women in Twentieth-Century Science, Engineering and Medicine, part III;

ASSIGNMENT for week of 4/12:

- Rossiter, p. 248-316;

Tuesday, April 19 and Thursday, April 21 -

Medicine, Gender, and Reproductive Technologies: Change and Controversy;

ASSIGNMENT for week of 4/19:

- Andrea Tone, "Contraceptive Consumers: Gender and the Political Economy of Birth Control in the 1930s," on reserve.
- Emily Martin, "The Egg and the Sperm: How Science Has Constructed a Romance Based on Stereotypical Male-Female Roles," on reserve.
- Boston Women's Health Book Collective, *Our Bodies, Ourselves*; excerpts; material handed out in class.

Tuesday, April 26 and Thursday, April 28 -

1960s on: Ecofeminism, feminist critiques of science and technology, and present-day educational and professional issues;

ASSIGNMENT for week of 4/26 :

- material handed out in class.

Week of May 2 -

FINAL EXAMINATION WEEK - final exam at time to be announced