01-20

Eastern Illinois University
Revised Course Proposal
EIU 4169G, Women in Science

1. Catalog description

a. EIU 4169G
b. Women in Science
c. Credit: 3-0-3
d. On demand
e. Women in Science
f. The course examines the lives and accomplishments of women in science throughout history. Special attention is paid to the current issues confronting women in science and historical events that have contributed to the current situation. Biological Sciences majors are excluded.
g. Completion of 75 semester hours.
h. Writing intensive course.

2. Student learning objectives

Students will:

- read a variety of written materials including review or summary periodicals in addition to primary sources (literacy)
- discuss readings in class enhancing speaking standard English as well as listening with comprehension skills (literacy, critical thinking)
- write five integrative papers (four reaction papers and one term report) analyzing and synthesizing materials and concepts covered in course readings and class discussions (literacy, critical thinking)
- orally present their term paper in the class (literacy)
- learn to respond to "thought questions" based on assigned readings during classroom discussion as the relationship between society and women is explored (critical thinking, citizenship)
- gain an understanding of the scientific method, ethics in science, and the social responsibilities associated with scientific investigation (citizenship)
- understand current issues confronting women in science after gaining an awareness of historical events that have contributed to the current situation (critical thinking, citizenship)
- enhance their understanding of the impact of constrained roles in society to both individual women and women as a population (citizenship)

3. Course outline

Course outline is based on one 150-minute class meeting a week for 15 weeks. The first week is devoted to introducing terms, themes and reading material. The twelfth week will be used for assessment, specifically TASKS test, and the last week will be reserved for course conclusion and summary.

Week 1
Introduction to the Course

a. The nature of scientific inquiry
b. What is science?
c. Scientific method
d. On becoming a scientist...
e. Objectivity, subjectivity and relativism

Readings:

- Keller, Evelyn (1985) Reflections on Gender and Science, *part 1, pp. 15-33.*
- National Academy of Sciences (1995) On being a scientist, *pp. 1-36.*

Week 2
Women and the Scientific Endeavor

a. What is gender?
b. Gender, sex, and evolution
c. Gender stereotypes within the language of Science

Readings:

- Fausto-Sterling A. (1992) Myths of Gender, *Ch. 3.*
- Tavris C. (1992) The Mismeasure of Woman, *Ch. 8.*

Week 3 and 4
Women's Contributions to Early Science

a. The role of Greek women in Science
b. The role of medieval women in Science

Readings:

- Alic, M. (1986) Hypatia's Heritage: A History of Women in Science from Antiquity through the Nineteenth Century. Beacon Press, Boston. *Ch. 1, 2, 3 and 4.*

Week 5 and 6
Women's Contributions to Modern Science
Readings:

- Rossiter, M. (1982) Women Scientists in America: Struggles and Strategies to 1940. John Hopkins University Press, Baltimore. *Ch. 1-5.*
- Selected current articles

Week 7 and 8
Status of Women in Science
Readings:

- Preston A. H. (1994) Why have all the women gone? A study of exit of women from science and engineering professions. The American Economic Review, vol. 84, *pp. 1446-62.*
- Selected current articles

Week 9, 10 and 11
Women Nobel Prize winners

a. Students' presentations/discussion for each woman Nobel Prize winner

Readings:

- McGrayne, S.B. (1998) Nobel Prize Women in Science. Birch Lane Press, N.Y. *Chapters as assigned.*

Week 12
Assessment activities

Week 13 and 14
Women Nobel Prize winners

a. Students' presentations/discussion for each woman Nobel Prize winner

Readings:

- McGrayne, S.B. (1998) Nobel Prize Women in Science. Birch Lane Press, N.Y. *Chapters as assigned.*

Week 15
Course conclusion and summary

4. Evaluation of student learning

a) Writing skills will be evaluated through several writing assignments. Students will write four reaction papers based on the course material and class discussion, and a written term paper on a woman Nobel Prize winner, chosen at the beginning of the course. The term paper will include library and Internet research. Speaking skills will be evaluated based on the class discussions and oral presentation of the term paper. Critical thinking and understanding of the material will be continuously evaluated in the grading of the content and quality of written and oral work.

b) The term paper will be returned to the student after preliminary evaluation for further revision. In addition, student will be advised to consult with the instructor during the writing process. The course grade will be based as indicated below:

Attendance and class participation	20%
Four reaction papers	40%
Oral presentation	20%
Term report	20%
TOTAL	100%

5. Rationale

a. Senior Seminar
b. Prerequisite: 75 hours completed
c. This course is a revision of the current 2-hour Senior Seminar, EIU 4069G.
d. Course will not be required in any majors or programs other than general education senior seminar.

6. Implementation

a. Initial instructor: Marina Marjanovic
b. Textbooks and supplementary materials:
   1) Textbooks:
      McGrayne, S. B. (1998) Nobel Prize Women in Science, Birch Lane Press, N.Y.
      On Being A Scientist (1994) National Academy of Sciences Press, Washington D.C.
   2) Library reserve readings:
      Alic, M. (1986) Hypatia's Heritage: A History of Women in Science from Antiquity through the Nineteenth Century. Beacon Press, Boston.
      Fausto-Sterling, A.(1992) Myths of Gender. Basic Books, N.Y.
      Keller, E. F. (1985) Reflections on Gender and Science. Yale University Press, London.
      Rossiter, Margaret (1982) Women Scientists in America: Struggles and Strategies to

1940. John Hopkins University Press, Baltimore.
Tavris, C. (1992) The Mismeasure of Woman. Touchstone, N.Y.

3) Current periodical articles will be included as appropriate.

c. Additional costs: none
d. Term first offered: Fall 2001

7. Community college transfer: A community college course will not be judged equivalent to this course.
8. Date approved by Department Curriculum Committee: December 6, 2000
9. Date approved by the College Curriculum Committee: January 26, 2001
10. Date approved by Senior Seminar Advisory Committee: March 21, 2001
11. Date approved by CAA: April 5, 2001

Contact person: Marina Marjanovic
Phone: 217-581-6386
e-mail: cfmm