



DEPAUL UNIVERSITY – The School for New Learning (SNL)

SW 364 - Women of Science

Fall 2009 ♦ O'Hare Campus ♦ 6:30-9:30
Wednesdays, 9/9 – 11/18/2009

Instructor **Jennifer K. Holtz, Ph.D. (Jennifer)**
Email: jholtz@depaul.edu (preferred method of contact)
Phone: 312-476-3612
Fax: 847-296-4381

Dr. Holtz is a member of SNL's Resident Faculty. Her areas of interest include the actual act of research and characteristics of researchers; medical and research ethics and how creativity affects both teaching and learning in the sciences. Before joining DePaul's faculty, she conducted clinical and medical education research, and taught research methods and research ethics; since joining DePaul, she has authored the SNL Online courses "Creative Brain," "Everyday Biomedical Ethics," "Chauvinism and the Quest for Science" and "Design of the Fittest," and offered the campus-based courses "Women of Science" and "Chronic Illness." Dr. Holtz has served on numerous research and curriculum committees at both the DePaul and SNL levels, and has published extensively in the clinical sciences, clinical education, and in distance learning and assessment in the sciences, including her 2008 book, "Online Science Learning: Best Practices and Technologies," with Dr. Kevin Downing.

Course Description:

Students will explore the contributions of women scientists through recorded history, the essence and importance of their work, the social world in which they worked and their contemporaries, and the challenges they faced at various times in history. Each student will select a scientist about whom he or she will develop a final project, to include: biographical data, a synopsis of the scientist's socioeconomic and political world, description of her work and explanation of how it affected contemporary understanding of the world. In addition, students will complete a project for each competence they select on enrollment.

Sought Outcomes:

In addition to the assignments described later in this syllabus, students will complete one or two of the following competence projects, based on the competence(s) for which they enroll. The default assignment is a written paper, although students are encouraged to consider other possibilities and negotiate alternatives with the instructor.

S-1-E: Can analyze inventions or technologies and understand their underlying scientific principles.

A student opting for S-1-E will delve more deeply into the work of his or her assigned scientist, describing the science on which the scientist's work was built. Students may use concept maps to simplify complex theories and processes, if desired; guidelines will be provided. Those students using concept maps are required to submit a written introduction to the topic, including how the concept maps should be evaluated.

S-3-A: Can understand different perspectives on the relationship between technology and society, and describe the scientific principles underlying technological innovations.

A student opting for S-3-A will explore more deeply support for and resistance to the work of his or her scientist from the perspective of society as it was, as well as society now. What was/is the basis of the support and resistance? Students may incorporate concept

maps *within* their written paper to simplify complex theories and processes, if desired; guidelines will be provided.

A-3-C: Can examine a social issue from an ethical perspective.

A student opting for A-3-C will examine the ethics of sexism from a historical consciousness perspective: what was the reasoning? What is the reasoning? What can we expect the reasoning to be based on in the future, assuming that sexism persists?

H-4: Can analyze power relations among racial, social, cultural, or economic groups in the United States.

A student opting for H-4 will examine the *social* and *cultural* bases of sexism within the United States, from a historical consciousness perspective: what was the reasoning? What is the reasoning? What can we expect the reasoning to be based on in the future, assuming that sexism persists? Select at least 2 different subcultures within the United States, whether that of national origin, geographic location, or socioeconomic status.

H-1-B: Can explain how two or more of the factors of race, ethnicity, nationality, class, socioeconomic status, age, gender, sexual orientation, or religion interact to shape communities.

A student opting for H-1-B will examine the scientific community, and how 2 factors listed, *other than gender*, are represented within and interact to shape the community. Students may incorporate gender in their discussion, but are not required to.

Learning Strategies:

Structured largely as a seminar, class meetings are designed around activities including, but not limited to: interactive discussion, individual and small-group inquiry leading to presentations, readings and written work. Students are to provide constructive feedback to each other's individual and group work.

Text and Resources:

1. Schiebinger, Londa. (1989) *The Mind Has No Sex? Women in the Origins of Modern Science* Cambridge: Harvard University Press. ISBN: 0-674-57625-X
2. *4000 Years of Women in Science*, <http://www.astr.ua.edu/4000WS/>
3. *Women in Science*, <http://library.thinkquest.org/20117/intro.shtml?tqskip1=1&tqtime=0811>
4. Svitil, Kathy A. The 50 Most Important Women in Science. *Discover* 23(11). (provided by instructor)
5. Other materials, as provided by the instructor

Attendance:

Interaction is a substantial portion of the grade structure of this course, so absences—while occasionally unavoidable—are discouraged. Each participant is expected to prepare appropriately for each session and engage in discussions.

Academic Integrity

Please become familiar with <http://studentaffairs.depaul.edu/handbook/code16.html>, and <http://www.indiana.edu/~wts/wts/plagiarism.html>.

Plagiarism: Plagiarism is a major form of academic dishonesty involving the presentation of the work of another as one's own. Plagiarism includes but is not limited to the following:

- The direct copying of any source, such as written and verbal material, computer files, audio disks, video programs or musical scores, whether published or unpublished, in whole or part, without proper acknowledgement that it is someone else's.

- Copying of any source in whole or part with only minor changes in wording or syntax, even with acknowledgement.
- Submitting as one's own work a report, examination paper, computer file, lab report or other assignment that has been prepared by someone else. This includes research papers purchased from any other person or agency.
- The paraphrasing of another's work or ideas without proper acknowledgement.

Plagiarism, as with other forms of academic dishonesty, is always a serious matter. Per DePaul policy, if a facilitator finds that a student has plagiarized, the appropriate penalty is at the facilitator's discretion. ***In this course, every paper that you submit will be evaluated using TurnItIn® software. Students have one opportunity to correct plagiarized material; a second offense, on the same or another assignment, results in a failing grade.***

Actions taken by the facilitator do not preclude the college or the university from taking further punitive action including dismissal from the university.

Course Map*:

**subject to change, per class needs*

SESSION	COURSE ACTIVITY	ASSIGNMENT FOR FOLLOWING WEEK...
1	Introductions to class and course	Read Chapters 1 & 2 "Scientific Me" autobiography
2	Schiebinger, Chapters 1 & 2 Computer Lab/Library work time	Read Chapters 3 & 4
3	Schiebinger, Chapters 3 & 4 Computer Lab/Library work time Assignment of scientists/dates	Read Chapters 5, 6 & 7 Chapter discussion Presentation(s)
4	Schiebinger, Chapters 5, 6 & 7	Read Chapters 8, 9 & 10 Chapter discussion Presentation(s)
5	Schiebinger, Chapters 8, 9 & 10 Scientist-1 Presentations	Presentation(s)
6	Scientist-1 Presentations Questions for guest speakers	Read Barr & Birke; others provided by instructor Presentation(s)
7	<i>Guest speakers</i> Changes in science education & learning	Read Barr & Birke; others provided by instructor Presentation(s)
8	<i>Guest speakers</i> Changes in science education & learning	Presentation(s)
9	Scientist-2 Presentations w/comparison	"Scientific Me" addendum
10	Scientist-2 Presentations w/comparison; submit "Scientific Me" addendum; wrap-up	

Assignments:

ASSIGNMENT	% OF FINAL GRADE
Discussion & interaction	30
"Scientific Me" autobiography/addendum	20
Scientist-1 profile	20
Scientist-2 profile w/comparison	30

Detailed rubric will be distributed in class.

Assessment:

A = 95 to 100	A- = 91 to 94	B+ = 88 to 90
B = 85 to 87	B- = 81 to 84	C+ = 77 to 80
C = 73 to 76	C- = 69 to 72	D+ = 65 to 68
D = 61 to 64	F = 60 or below	INC

I – A grade of incomplete must be requested by the learner prior to the last session.

Incompletes are granted solely at the discretion of the facilitator, given unusual and special circumstances. Sufficient achievements at the time of the request (i.e., course work stands at the level of “C” work or better) *must be in evidence* for the student to request an I grade.

A learning contract, stipulating the requirements and timeline for completion of work, will be negotiated in the case where the facilitator agrees to an Incomplete. Incomplete grades must be made up within the two terms following the term in which they were received or they automatically turn into “F” grades.

Protection of Human Subjects:

Demonstrating competence sometimes involves human interactions, including interviewing and or observing people outside of the course, discussing those interactions with class members and reporting on the interactions in written format(s). As such, these interactions qualify as human subjects research and are subject to University and Federal guidelines. Research which takes place in the context of this course is exempt from approval by the School for New Learning’s Local Review Board *only under the following conditions:*

1. The data collected is *exclusively* for the purpose of class discussion and will not be used for any other purpose, whether during the course or at any time afterwards. If there is any possibility that the data could be used in further research or for publication, then students must obtain approval from the Local Review Board before beginning.
2. Students assess the risk of harm to the individual, whether physical, mental or social, and ensure that no harm does or could result from interviews, observations, discussion and/or reports.
3. The privacy and confidentiality of those interviewed, observed, or discussed in the course are protected. Unless the student receives written permission from an individual to use the individual’s name, all names should be changed or eliminated, ensuring that identity cannot be determined from the data provided.

Written permission can be secured only through an *Informed Consent document*, which your instructor will help you develop, if appropriate.

For more information see: <http://condor.depaul.edu/~irb/>