

LB 336: Gender and Evolution

T/Th: 5.00-6.50pm in C101 Holmes

Dr. Georgina M. Montgomery

montg165@msu.edu

25B West Holmes Hall

Office Hours: W 11.45-12.45 and by appointment

Course Description: The history of evolutionary thinking has been shaped by intellectual, material and cultural contexts. Issues of gender, in intersection with other factors such as race, form part of these contexts. Nevertheless, gender is often unexplored or underexplored when considering the history of evolution. For example, the contributions of women to evolutionary thinking regularly go un-highlighted and questions of masculinity and sexuality are pushed to the periphery of discussions of evolutionary thinking. In contrast, this class centers the contributions of women and questions of gender to reveal how such issues shaped evolutionary thinking and the consequences of evolutionary thinking for ideas of masculinity and femininity.

This class also explores how the history of science can be displayed to share scholarly research. Specifically, we will look at the use of museum displays and digital media as ways of providing access to historical sources and scholarly research. The insights we gain from analyzing how research is displayed in these forums will be applied to our final projects.

Course Objectives:

This class will develop your writing, verbal, and analytical skills by demanding:

- thoughtful and critical reading of assigned materials
- formation of strong arguments effectively supported by historical evidence drawn from class materials
- formation of strong arguments supported by historical evidence drawn from independent, original, research of primary and secondary sources
- ability to work in a team to create and communicate knowledge

Of course this class will also broaden and deepen your understanding of the history of evolution, especially in respect to women's history and issues of gender. Each of the assigned readings and assignments aims to fulfill one or more of the above learning objectives.

Academic Honesty: Your own arguments and ideas are valuable. Your assignments must be your own work. Use of primary and secondary sources, including quotes and paraphrasing, must be appropriately cited. **Any form of cheating or plagiarism will not be tolerated in this class.** In accordance to MSU's policy, any academic dishonesty will be reported to both the Dean **and** the university and will thereby become a **permanent** entry on your academic record.

More information is available under the 'Academic Honesty' link on the Briggs website. It is your responsibility to be familiar with these policies and those in the MSU student handbook. If you have questions or concerns, speak to Prof. Montgomery **BEFORE** submitting any assignment. Once an assignment has been submitted, I have no choice but to follow formal channels if an academic dishonesty issues occurs.

Peer Assisted Learning – Learning Teams

In this class you will be in learning teams of 4-5 peers. The composition of the groups will be determined using a software called team maker. The teams will work together on the assigned readings and on the final projects. Any problems with your group must be reported to Dr. Montgomery right away.

This is how it will work – Before each class, half of the team will read one of the assigned readings and the other half will read the second assigned reading. Each student will write an abstract-like summary of the article they read for class, with their name and date on the top of the page. Each class will begin with time for the team to identify two or more connections between the readings and write these down under your abstracts. One copy of the summary/connections sheets will be handed to Dr. Montgomery and will count towards your participation grade. The group will keep the other copy. You can use these sheets during the midterm examination. The rest of the class will be spent in large group discussion, activities, film etc and your participation in this portion of the class will also impact your participation grade.

Assignments

Participation: Everyone gets the first week of classes to get used to the class and get to know one another without the need to participate for credit. However, it is important to realize that an effective seminar depends on you participating in class discussion and coming to class prepared to discuss the assigned materials. Participation is making meaningful, thoughtful, contributions to your learning team discussions and large class discussion and activities. Thus, repeating points made by others or comments that do not demonstrate a thoughtful reading of the assigned material will not count towards your participation points. Equally, simply attending class will not gain you points.

Starting on January 18, I will be recording your participation for each class meeting that requires reading and for participation in the peer review class. Each class

marked with a * is worth 1% and the class debate is worth 3%. The learning team reading summaries and connections handed in during each class will serve as “proof” that you have thoughtfully read the assigned material. You may also use these sheets during the midterm examination. Note: *These points really add up during the semester so you must ensure you do the reading for each and every class and come to class ready to participate.* It is also your responsibility to keep up to date about what your participation score is during the semester. Worth 20%.

Darwin Correspondence Project Exercise: This exercise will expose you to digital archives – an easy, accessible way to get primary sources – and develop your skills at synthesizing sources of evidence. You should write a 2 page (double-spaced) response to the discussion questions on the website. More details will be provided on the assignment handout. Worth 3%.

‘Reform’ Darwinism and the Woman Question Paper: This 5 page (double-spaced) paper will engage with the relevant primary and secondary sources assigned in class. Points will be deducted for writing over the page limit. You will have the opportunity to have your paper peer reviewed. More details will be provided on the assignment handout. Worth 15%

Midterm Exam: This examination will be close-book with the exception of your learning team reading sheets prepared during our class meetings. The exam will consist of short answer questions (a few lines to a short paragraph) and short essay questions. Note: You will be given several questions ahead of time from which the short *essay* questions will be selected. The exam will take place in the regular classroom during regular class time. More details will be provided in the two in-class, student-led, reviews. Worth 20%.

Museum Field Trip Response Paper: This 2 page paper (double spaced) must synthesize the Kohlstedt reading, MSU museum tour and curator Val Berryman’s talk. The paper must consider the role of gender in museum displays AND provide an original design (in words or as an illustration) for an exhibit on gender and evolution. More details will be provided on the assignment handout. Worth 5%

Review of Women in Science Digital Collections: This 2 page paper will evaluate the format, search engine, and types of sources of a range of women in science digital collections. You will be provided with a website with links to a number of women in science digital collections from which you should choose four. More details will be provided on the assignment handout. Worth 3 %.

Final Group Project – Displaying Histories: This project will be completed in groups of 4-5 (your learning teams). This project must demonstrate research skills in regard to the use and analysis of primary AND secondary sources and must directly connect to key topics from the class. For example, you may choose to do a biography of one or more female researcher(s) who worked on evolutionary issues during the Victorian or modern

period, or you may choose to focus on a controversial topic related to gender and evolutionary issues. **Whatever your group decides, you must see Dr. Montgomery before moving forward with your research.**

Options for the format for the final project include: a digital archive exhibit featuring primary sources with text providing both context and analysis (using a website creation program), a museum exhibit, a blog engaging with a number of primary and secondary sources, or a youtube-like history documentary / role-playing activity on film. Of course, these projects must be of a professional and scholarly quality and must include cited quotes, evidence and a bibliography.

Do you have other great ideas? Run them by Dr. Montgomery to determine if they will work as a final group project for this class. Remember they should be digital / visual / audio-visual in some way.

Please note that, regardless of what format you use, you will need to provide evidence that each group member contributed to the final product. This may be provided by: clearly articulating who has done what when you meet with Dr. Montgomery late in the semester, providing Dr. Montgomery with a journal chronicling your work, and/or or individual authorship of sections of the final project (being mindful that the overall project should be cohesive with smooth transitions and overall structure). Any problems with your group must be reported to Dr. Montgomery right away. Worth 25%

Final Student Group Presentation: This 10-minute presentation should share with the class 1) the topic of your final group project; 2) the evidence you are engaging with; 3) how this evidence demonstrates your argument; 4) how and why you will be communicating this research with digital / visual / audio-visual media. The presentation may be PowerPoint, may be a tour of the website or blog you are creating, or may be a role-playing activity, or other format approved by Dr. Montgomery. Points will be deducted for going over the allotted 10 minutes. Worth 7%.

Student Feedback for Student Presentations: We are a learning community so you have a responsibility to help your peers by providing feedback when they present. What holes do you see in their argument? What suggestions do you have for how they present their final project? Requires attending and providing feedback at *both* student presentation classes. Worth 2%

Note: The Chicago Manual of Style should be used for *all* citations in *all* written assignments. Go to the following website for more info on this style of citation:
<http://writing.wisc.edu/Handbook/DocChicago.html>

Grade Points and Percentages

4.0 = 92% to 100%

3.5 = 86% to 91%

3.0 = 80% to 85%

Please refer to the last page of the syllabus

2.5 = 74% to 79% *to see the grading rubric that will be used*
2.0 = 68% to 73% *for all written assignments*
1.5 = 62% to 67%
1.0 = 56% to 61%
0 = less than 56%

Schedule of Topics, Readings, and Assignments (Subject to Change)

Tuesday January 11: Introductions and Reviewing Syllabus and Class Expectations

Thursday January 13: The Power of Words: What Do We Mean By “Gender and Evolution”?

Gender and Evolution in the Victorian Era

Tuesday January 18: An Introduction to Gender Issues*

Reading: Theories of Gender and Race” in Londa Schiebinger, *Nature’s Body: Gender in the Making of Modern Science* (New Brunswick: Rutgers University Press, 2006); and Ruth Hubbard “Science, Facts and Feminism” in Mary Weyer et al, eds., *Women, Science and Technology: A Reader in Feminist Science Studies* ((New York: Routledge, 2001), 153-160 (ANGEL)

Thursday January 20: An Introduction to Darwin*

Reading: Julia Voss, “Monkeys, Apes and Evolutionary Theory: From human descent to King Kong” in Diana Donald and Jane Munro, eds., *Endless Forms: Charles Darwin, Natural Science and the Visual Arts* (Cambridge: Yale University Press, 2009), 215-237; and John Beatty and Piers Hale, “*Water Babies: An Evolutionary Parable*” in *Endeavour* vol. 32, No. 4 (1998): 141-146 (ANGEL)

Tuesday January 25: An Introduction to Darwin*

Reading: Janet Browne, “Looking at Darwin: Portraits and the Making of An Icon” *ISIS* 100 (2009): 542-570; and Constance Clark, “‘You are Here:’ Missing Links, Chains of Being and the Language of Cartoons” *ISIS* 100 (2009): 571-589 (ANGEL)

Thursday January 27: Evolutionary Depictions of Men and Women Before and During Darwin’s Time*

Reading: Londa Schiebinger. “Gendered Ape” in Marina Benjamin, ed., *A Question of Identity: Women, Science and Literature* (New Brunswick: Rutgers University Press, 1993); and Jeanette Eileen Jones, “‘Gorilla Trails in Paradise:’ Carl Akeley, Mary Bradley and the American Search for the Missing Link,” *The Journal of American Culture* 29, no. 3 (2006): 321-336 (ANGEL)

Tuesday February 1: Evolutionary Depictions of Men and Women Before and During Darwin's Time*

Reading: Lindsay B. Churchill, "What Is It? Difference, Darwin and the Victorian Freak Show" in Jeanette Eileen Jones and Patrick B. Sharp, eds., *Darwin in Atlantic Cultures: Evolutionary Visions of Race, Gender and Sexuality* (New York, Routledge, 2010); and Janet Browne and Sharon Messenger, "Victorian Spectacle: Julia Pastrana, the Bearded and Hairy Woman," *Endeavour* 27, no. 4 (2003): 155-159 (ANGEL)

Thursday February 3: Women and the Study of Evolution / How did Darwin Regard Women?*

Reading – TO BE DONE BY ALL TEAM MEMBERS: Explore gender and Darwin website including listening to the BBC 4 clip (13 mins long), reading the gender letter sets and consider the discussion questions on the website.

<http://www.darwinproject.ac.uk/darwin-and-gender>

Assignment due: Darwin Correspondence Project Exercise. (This exercise is part of us asking what is the significance of what and how historical information is presented and using this to inform your own final projects). See assignment section above and the relevant assignment handout for details.

Tuesday February 8: Women and the Study of Evolution / How did Darwin Regard Women?*

Reading: Joy Harvey, "Darwin's Angels: The Women Correspondents of Charles Darwin," *Intellectual History Review* 19, no. 2 (2009): 197-210; and Evelleen Richards, "Darwin and the Descent of Woman" in D. Oldroyd and I. Langham, eds., *The Wider Domain of Evolutionary Thinking* (Boston: Kluwer Press, 1983), 57-111 (ANGEL)

Thursday February 10: 'Reform' Darwinism and the Woman Question: Focusing on Secondary Sources*

Reading: Erika Milam, "Beauty and the Beast: Darwin, Wallace and the Animal-Human Boundary" in *Looking for a Few Good Females: Female Choice in Evolutionary Biology* (Baltimore: The University of Johns Hopkins University Press, 2010); and Griet Vandermassen, Marysa Demoor and Johan Braeckman, "Close Encounters with a New Species: Darwin's Clash with the Deminists at the End of the Nineteenth Century" in Anne-Julia Zwierlein, *Unmapped Countries: Biological Visions in Nineteenth Century Literature and Culture* (London: Anthem Press, 2005) (ANGEL)

Tuesday February 15: 'Reform' Darwinism and the Woman Question: Focusing on Secondary Sources*

Reading: Rosemary Jann, "Revising the Descent of Woman: Eliza Burt Gamble" in Barbara Gates and Ann B. Shteir, eds., *Natural Eloquence: Women Reinscribe Science* (Madison: University of Wisconsin Press, 1997); and Penelope Deutscher, "The Descent of Man and the Evolution of Woman" *Hypatia* 19, no. 2 (2004): 35-55 (ANGEL)

Thursday February 17: 'Reform' Darwinism and the Woman Question: Focusing on Primary Sources*

Reading – TO BE DONE BY ALL TEAM MEMBERS: Danielle Peck's biographical essay on Eliza Burt Gamble on

<http://womeninscience.history.msu.edu/Biography/C-4A-2/eliza-burt-gamble/>

And excerpts from Eliza Gamble, *The Evolution of Woman* and Charlotte Perkins Gilman, *Women and Economics* (ANGEL)

Tuesday February 22: 'Reform' Darwinism and the Woman Question – Peer Review of 'Reform' Darwinism and the Woman Question Papers*

Thursday February 24: Review in Preparation for Midterm Exam # 1

Assignment due: 'Reform' Darwinism and the Woman Question Paper. See assignment section above and relevant assignment handout for details.

Tuesday March 1: Review in Preparation for Midterm Exam # 2

Thursday March 3: In-Class Exam Consisting of Short Answer Questions and Short Essay Questions

March 7-11: NO CLASS – SPRING BREAK

Gender and Evolution in Modern Times

Tuesday March 15: Class Field Trip to the MSU museum. Use the Kohlstedt reading to inform your viewing of the exhibits. The tour will be accompanied by a talk by curator Val Berryman about how to design an effective museum exhibit. (This exercise is part of us asking what is the significance of what and how historical information is presented and using this to inform your own final projects).

Reading – TO BE DONE BY ALL TEAM MEMBERS: Sally Gregory Kohlstedt, "Nature by Design: Masculinity and Animal Display in Nineteenth-Century America" in Ann B. Shteir and Bernard Lightman, eds., *Figuring It Out: Science, Gender and Visual Culture* (Dartmouth, 2006) (ANGEL)

Thursday March 17: Seeing an Example of HPS Research on Women in Science

NO CLASS: In place of class, you may choose to see Dr. Marsha Richmond present on the history of women in genetics at 3-4.30pm in 340 Morrill Hall (OPTIONAL)

Tuesday March 22: Transitioning into Modern Period and Forming Groups and Brainstorming Ideas for Final Group Projects*

Reading: Patricia Adair Gowaty, "Introduction: Darwinian Feminists and Feminist Evolutionists;" and Anne Fausto-Sterling, "Feminism and Behavioral Evolution: A

Taxonomy” in Patricia Adair Gowaty, ed., *Feminism and Evolutionary Biology* (New York, Chapman and Hall, 1997) (ANGEL)

Assignment due: Museum field trip response paper. See assignment section above and relevant assignment handout for details.

Thursday March 24: Courting Controversy in Human Society - The Wild Man V. The Coy Female*

Reading: “Male and Female” in Robert Wright, *The Moral Animal* (New York: Vintage Books, 1994), 33—54; Scott Morris, “Darwin and the Double Standard” in *Playboy*; and Ruth Bleier “Sociobiology, Biological Determinism and Human Behavior” Mary Wyer et al, eds., *Women, Science and Technology: A Reader in Feminist Science Studies* (New York: Routledge, 2001), 175-193 – ALL TEAM MEMBERS SHOULD READ THE BLEIER CHAPTER (ANGEL)

Tuesday March 29: Courting Controversy in Human Society - The Wild Man V. The Coy Female*

Reading: Sarah Hrdy, “Empathy, Polyandry and the Myth of the Coy Female” in Janet Kourany, ed., *The Gender of Science* (Upper Saddle River N.J: Prentice Hall, 2002); and Kimberly Hamlin, “The Birds and the Bees: Darwin’s Evolutionary Approach to Sexuality” in Jeanette Eileen Jones and Patrick B. Sharp, eds., *Darwin in Atlantic Cultures: Evolutionary Visions of Race, Gender and Sexuality* (New York, Routledge, 2010) (ANGEL)

Thursday March 31: Courting Controversy in Human Society - The Wild Man V. The Coy Female*

Reading – TO BE DONE BY ALL TEAM MEMBERS: Emily Martin, “The Egg and the Sperm: How Science has Constructed a Romance based on Stereotypical Male-Female Roles” *Signs* 16, no. 3 (1991) (ANGEL); AND your learning team is responsible for bringing examples of depictions of masculinity and femininity in biology textbooks and/or science magazines, TV shows, documentaries to class.

Tuesday April 5: Class Debate – What role should evolutionary frameworks play in our understanding of human sexuality and courtship?***

Assignment due: Review of Women in Science Digital Collections (Part of us asking what is the significance of what and how historical information is presented and using this to inform your own final projects). See assignment section above and relevant assignment handout for details.

Thursday April 7: The F-Word - As Used by Modern Evolutionary Biologists*

Reading: Sue Rosser, “Possible Implications of Feminist Theories for the Study of Evolution” in Patricia Adair Gowaty, ed., *Feminism and Evolutionary Biology* (New York, Chapman and Hall, 1997); and Helen Longino “Can There be a Feminist Science?” in Mary Wyer et al, eds., *Women, Science and Technology: A Reader in Feminist Science Studies* ((New York: Routledge, 2001), 216-222 (ANGEL)

Tuesday April 12: The F-Word - As Used by Modern Evolutionary Biologists*

Reading – TO BE DONE BY ALL TEAM MEMBERS: Caitilyn Allen, “Inextricably Entwined: Politics, Biology and Gender-Dimorphic Behavior” in Patricia Adair Gowaty, ed., *Feminism and Evolutionary Biology* (New York, Chapman and Hall, 1997) (ANGEL)

Thursday April 14: Class Time for Working on Group Projects

Tuesday April 19: Finalizing Final Group Projects

In place of class your group should make an appointment to see Dr. Montgomery to discuss your progress regarding the final project

Thursday April 21: Finalizing Final Group Projects

In place of class your group should make an appointment to see Dr. Montgomery to discuss your progress regarding the final project

Tuesday April 26: CLASS CONFERENCE ~ Student Group Presentations, coffee and treats

Thursday April 29: CLASS CONFERENCE ~ Student Group Presentations, coffee and treats

Final Projects Must be Handed to me in C101 before or during our Finals Exam Period: Tuesday May 3, 5.45-7.45pm

How to Succeed in the Class

Do the reading. This means spending time and thought on the reading, making notes, and coming to class ready to talk about the reading. The MSU student handbook suggests you spend 2 hours outside of class for every credit your class is worth. This class is worth 4 credits.

Spend time and thought on the writing assignments. This means making outlines, drafts, and seeking support from the HPS LA's, MSU writing center, and from me.

Tell me if you are struggling to read the material critically, understand class content and concepts, or write a well-argued paper. You can talk to me during office hours, by appointment, or by email.

A word about email ~ you MUST say who you are writing to (Dr. Montgomery) and who you are. You MUST also use your MSU email account. This is to maintain your privacy (anyone can claim to be you if emailing from a hotmail or yahoo account) and to maintain good manners when emailing your professor.

In the classroom, we will be discussing class reading and topics in large and small groups. Come to class reading to participate, learn, and have fun!

And finally, as always at LBC, respect and integrity are central to how we treat one another.

Goals for Lyman Briggs College Tier I and Tier II Writing Courses

Above all, recognizing that writing is re-writing.

Recognizing that its thesis is *the* major element of your essay; thus, you should distinguish between the major and minor parts of an analysis or argument, and you should make the thesis the most important part.

Addressing the fundamental questions, “**How** do you know what you know?” and “**Why** do you feel what you feel?”—and being able to distinguish those questions from the simpler ones of “What do you know?” and “What do you feel?”

Accepting constructive criticism from peers, teachers, and yourself—and giving it tactfully in return.

Accepting that words really do matter.

Gauging your intended audience, and writing specifically to it. Different papers have different audiences; you’re never writing only to the professor.

Recognizing the differences between assertion, evidence, and analysis.

Recognizing that concession is not a weakness, and refutation is not a requirement.

Recognizing the importance of effective introductions and meaningful conclusions.

Recognizing the differences between paraphrasing, quoting, and plagiarizing; that is, knowing **why** and **when** to document, not just how to do it.

Mastering the basic rules of grammar, syntax, usage, and punctuation.

Writing with a sense of purpose, confidence, humor, joy, and wisdom

Knowing how to find the MSU Main Library, how to want to go through its doors, and how to find key information inside it. Accepting that not all good (and reliable) resources can (yet) be found via your computer keyboard.

Differentiating between peer-reviewed and public-domain resources and between primary and secondary resources.

Evaluating the reliability of all resources. Be skeptical! Be thorough!

Some of the Many FREE Resources at MSU

HPS LA’s (Learning Assistants) are available to help you with editing your papers: See schedule in HPS notice board by E-184

The Writing Center: <http://writing.msu.edu/forum>

The Counseling Center: <http://www.couns.msu.edu/>

Resource Center for Persons with Disabilities: <http://www.rcpd.msu.edu/>