

# BEHAVIORAL BIOLOGY OF WOMEN HEB 1380

*Fall Semester 2021*

Tuesday & Thursday 9:00-10:15  
MCZ 529

Sections:

Section D001 – Monday 3:00-4:00

Section D002 – Wednesday 9:00-10:00

Room(s) TBA



**Professor:** Dr. Lara Durgavich; [ldurgavich@fas.harvard.edu](mailto:ldurgavich@fas.harvard.edu)

**Office Hours:** Tuesday 10:30-12:00 or by appointment. Just to be clear, these are *your* hours. You don't need to have a specific problem or question about the course to attend, and I enjoy talking with students outside the classroom context, so feel free to make use of them.

**Teaching Fellow:**

Laura Brubaker-Wittman; [laurabrubakerwittman@fas.harvard.edu](mailto:laurabrubakerwittman@fas.harvard.edu)

**Office Hours:** Thursday 11:30-1:30 on Zoom (link on Canvas)

**\*\*Please review this syllabus carefully. You are responsible for understanding course policies.\*\***

## **Course Description:**

An exploration of female behavioral biology from an evolutionary and biosocial perspective. Focuses on physiological, ecological, and social aspects of women's development from puberty, through reproductive processes such as pregnancy, birth and lactation, to menopause and aging. Also explores female life history strategies in a variety of cultural settings. Topics include behavioral differences between men and women and male and female reproductive strategies. Examples are drawn primarily from traditional and modern human societies; data from studies of nonhuman primates are also considered.

### Course Learning Objectives:

1. To understand how the forces of natural and sexual selection have shaped the evolution of human female biology, reproduction, life history and behavior and to contrast this with how these forces have shaped male biology, reproduction, life history and behavior.
2. To learn the details of female reproductive physiology and to explore how biology interacts with individual development and experience to shape both behavior and physiology, leading to an appreciation that biology does not lead to fixed behavioral outcomes.
3. To understand how different constraints on males and females affect male and female interaction, including the sexual division of labor, marriage systems, parenting strategies, and sexual coercion of females and the control of female sexuality.
4. To gain a greater understanding of female behavioral biology in order to understand current societal issues such as gender identity, sexuality, body image and eating disorders, female health and depression, and aging and female status
5. To learn how gender and societal context impact scientific and social inquiry, both in terms of the questions that are, and are not, asked. Students are challenged to consider how the gender of the scientist and historical context have shaped our understanding of female behavioral biology.

**Readings:** Readings are designed to complement as well as supplement the lectures, and to give you a sense of how female behavioral biology is represented in a variety of forums. The readings primarily discuss humans, but some also cover our primate heritage.

### Required Books:

- Trevathan, W. (2010) *Ancient Bodies, Modern Lives*. Oxford Press.
- Small, M. (1998) *Our Babies, Ourselves*. Anchor Books: New York.

**Web Site:** On the course Canvas site you can find the syllabus, lecture slides, handouts, readings, and links to other relevant material.

**Requirements:** Three non-cumulative exams, a final paper, and your discussion section grade will determine your grade in the course. For the paper you will interview a post-reproductive woman and do an evolutionary/life history analysis of her reproductive and life history decisions, incorporating material you learn in the course. Length is approximately 10 pages.

Section	20%	(10% section writing assignments; 10% section participation)
Exam 1	20%	October 5
Exam 2	20%	November 2
Final Paper	20%	due December 2, 11:59pm
Exam 3 (take home)	20%	due December 7, 11:59pm

**Attendance Policy: Pandemic Edition:** Given the extraordinary circumstances in which we continue to find ourselves, attendance at all lectures is strongly encouraged but not required. Please remember that while I hope to help you learn everything you want to learn in this class, your safety and health (physical & mental), and that of your classmates, is of paramount importance.

**Accessibility and Support: Pandemic Edition:** If you need accommodation as a result of a documented disability, you should register with the Accessible Education Office at the beginning of the semester. You can find out how to do so here: <https://aeo.fas.harvard.edu/students/register>.

Even if you do not have a documented disability, remember that other support services are available to all students. If you need extra help or feel like you're falling behind, do not suffer in silence! The sooner you alert me to any circumstances (personal, health-related, family-related, or other) that might affect your performance, the easier it will be for us to work together to adapt assignments to meet both your needs and the requirements of the course. If I can't help you with the problems you're facing, I will help you find someone who can.

In short, if you tell me you are having difficulty, I will not judge you or think less of you. I hope you'll extend me the same courtesy.

**Late or Missed Work: Pandemic Edition:** I recognize that current circumstances may require extra flexibility. If you know in advance that you will need extra time on an assignment, please contact me or Laura to make arrangements.

Any unanticipated cases of late or missed work will be assessed on an individual basis. Please be aware, however, that make-up exams are generally not allowed without an appropriately documented absence.

Hey, here's an easter egg for those of you who have read this far into the syllabus! If you email me a gif featuring a favorite female movie character by the end of this weekend (9/5), I'll give you +2% on your lowest exam score.

**Academic Integrity:** All Harvard University students are expected to be familiar with the Academic Integrity policy detailed in the Handbook for Students, particularly regarding issues such as plagiarism and cheating on exams. It is your obligation to know these rules and the consequences that may result from violating them. You can find this information at: <http://handbook.fas.harvard.edu/book/academic-integrity>

**A note about content:** This course may challenge your assumptions about gender and sexuality. We will discuss sensitive topics with multiple personal and political dimensions. You are expected to participate in any and all discussions with respect for your classmates and instructors.

We look forward to a challenging and stimulating semester!

## SECTIONS

The section component of this course offers an opportunity for you to discuss the assigned readings and their relevance to lecture materials in more detail than time allows during lecture, and to relate course materials to current events. Please make sure to thoughtfully complete all readings and come to section prepared to ask questions and participate in discussion. Because participation is a crucial component of successful discussions, section attendance is important; if you anticipate any section absences please communicate with Laura ASAP.

Section times TBA.

Sections will begin the third week of class.

### **Written Assignments:**

Each week you will submit a 1-page response to a prompt related to the readings and course material. A portion of each week's section will be devoted to discussing these responses and sharing your thoughts.

Please post the completed assignment to Canvas **by 5:00 pm the day before your section**. To help us keep submissions organized, please use the subject heading "Week ##, Section ##, Your Last Name".

Weekly assignments will be graded as follows:

Outstanding = 4 points

Good = 3 points

Below average = 2 points

Not submitted = 0 points

**No more than 2 points will be given for late assignments.**

## SCHEDULE

Any changes to the course schedule or to assigned readings will be announced in class and on the course website.

### **Week 1**

***Thu. 9/2: Introduction: What do we mean by the “Behavioral Biology of Women”?***

*Readings:*

- Lancaster, JB (1991) A feminist and evolutionary biologist looks at women.
- Trevathan, W (2010) Introduction: What does evolution have to do with women's health?

**No Sections this Week**

### **Week 2**

***Tue. 9/7: Primate Females - How are humans different?***

***Thu. 9/9: Natural Selection & Sexual Selection***

*Readings:*

- Hrdy, S (2009) *Mothers and Others*, Chapter 1: Apes on a Plane
- Small M (2010) *Female Choices*, Chapter 1: Biological Warfare

**No Sections this Week**

### **Week 3**

***Tue. 9/14: Female Choice and Sexual Coercion***

***Thu. 9/16: Menstrual Cycle***

*Readings:*

- Hrdy, SB (1981) A Climate for Dominant Females. In *The Women that Never Evolved*.
- Small, MF (1992) Female choice in mating. *American Scientist*.
- Trevathan, W (2010) Chapter 2: Vicious Cycles

**Section 1: Humans as Primates**

### **Week 4**

***Tue. 9/21: Puberty***

***Thu. 9/23: Evolution of Menstruation***

*Readings:*

- Trevathan, W (2010) Chapter 1: Are we grown up yet?

**Section 2: The Menstrual Cycle**

**Week 5*****Tue. 9/28: Female Reproductive Ecology******Thu. 9/30: Female Sexuality****Readings:*

- Ellison PT (2001) Balancing Act. In *On Fertile Ground*.
- Knott, CD (2001) Female reproductive ecology of the apes: implications for human evolution. In *Reproductive Ecology and Human Evolution*.

**Section 3: Puberty****Week 6*****Tue. 10/5: EXAM I (includes material through 9/30)******Thu. 10/7: Male Reproductive Biology****Readings:*

- Students find and critically evaluate a scientific study on human sexuality.

**Section 4: The Evolution of Human Sexuality****Week 7*****Tue. 10/12: Testosterone and Behavior******Thu. 10/14: Male Reproductive Ecology & Strategies****Readings:*

- Sapolsky (1998) The Trouble with Testosterone
- Ellison, PT (2001) The Body Builders. In *On Fertile Ground*.

**No Sections this Week****Week 8*****Tue. 10/19: Control of Female Reproduction & Sexuality******Thu. 10/21: Sexual Division of Labor & Marriage Systems****Readings:*

- Smuts, B (1992) Male aggression against women: an evolutionary perspective. *Human Nature*.
- Smuts, B (1995) The evolutionary origins of patriarchy. *Human Nature*.
- Gurven, et al. (2009) A Bioeconomic Approach to Marriage and the Sexual Division of Labor

**Section 5: Male Reproductive Biology & Behavior**

**Week 9*****Tue. 10/26: Contraception******Thu. 10/28: Conception and Fetal Loss******Readings:***

- Gladwell M (2000) John Rock's error. *The New Yorker*.
- Trevathan, W (2010) Chapter 3: Getting Pregnant
- Hrdy, SB (1999) Old Tradeoffs, New contexts. In *Mother Nature: a History of Mothers, Infants, and Natural Selection*.

**Section 6: Control of Female Sexuality & Sexual Division of Labor****Week 10*****Tue. 11/2: Exam II (includes material through 11/2)******Thu. 11/4: Pregnancy******Readings:***

- Trevathan, W (2010) Chapter 4: Staying Pregnant

**Section 7: Life History Strategies****Week 11*****Tue. 11/9: Labor and Birth******Thu. 11/11: Lactation******Readings:***

- Trevathan, W (2010) Chapters 5-7
- Small, M (1998) *Our Babies, Ourselves*, Chapter 6: Food for Thought

**No Sections this Week****Week 12*****Tue. 11/16: Aging & Menopause******Thu. 11/18: Parenting and Ethnopediatrics******Readings:***

- Trevathan, W (2010) Chapter 8-10
- Small, M (1998) *Our Babies, Ourselves*, Chapters 2-5

**Section 8: Pregnancy, Birth, and Lactation**

**Week 13*****Tue. 11/23: Agriculture, the Demographic Transition, & Women's Health******Thu. 11/25: NO CLASS; THANKSGIVING RECESS****Readings:*

- Borgerhoff Mulder, M (1998) The demographic transition: are we any closer to an evolutionary explanation? *Trends in Ecology & Evolution*.
- Trevathan, W (2010) Chapter 11: Implications for women's health in the 21<sup>st</sup> century

**No Sections this Week****Week 14*****Tue. 11/30: Evolutionary Perspectives on Fatness/Eating Disorders******Thu. 12/2: Biology, Work, & Family in the 21st Century****Readings:*

- Crittenden, A (2001) Conclusion: How to Bring Children Up Without Putting Women down. In *The Price of Motherhood: Why the Most Important Job in the World is Still the Least Valued*.
- Small, M (1998) *Our Babies, Ourselves*, Chapter 7: Unpacking the Caretaking Package

**Section 9: TBA**