Biology 886- Sexual Selection Spring 2023 Section 01- Online

Instructor: Dr. Nicholas Hobbs

Office: 220 Bruner Hall

Office Hours: 10:00am – 11:00am Mondays and Wednesdays, 11:00am – 12:00pm Tuesdays, or by

appointment

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NOTE: Email is my preferred method of contact, if you inquire about a personal issue. Please give me 24 hours to respond to all emails. General questions about the course can be posted on the Frequently Asked Questions (FAQ) Discussion Board on Canvas in the General Course Materials module.

COURSE DESCRIPTION: Small group discussions will be used to discuss readings on the role of sexual selection in evolution. Offered online, Spring of odd-numbered years.

REQUIRED READINGS: Reading material will be assigned every week, consisting of 1-3 PDFs of scientific articles. These materials will be made available on Canvas (https://canvas.unk.edu). As these materials are the basis for the online discussions, it is expected that you complete the readings in a timely manner.

REQUIRED MATERIALS/SOFTWARE: As this is an online class, you will need a computer/laptop with access to the internet, a microphone, and the following programs: Microsoft PowerPoint, Microsoft Word, Adobe Acrobat or another program to read PDFs, and Yuja (screen capture program available through Canvas).

COURSE OBJECTIVES:

- 1) Identify the similarities and differences between sexual selection with natural selection.
- 2) Differentiate between intrasexual and intersexual competition, and provide examples of each.
- 3) Describe the conflict between the sexes and how it relates to different mating and parenting strategies.
- 4) Describe the major mechanisms of mate choice.
- 5) Apply critical thinking skills to construct an argument using data to support the claim.

COURSE ORGANIZATION: This course consists of an introductory week, 14 weeks consisting of weekly discussion boards, and a wrap-up week. Readings related to each of the discussion boards will be made available the week prior on Canvas. For example, the readings for week 3 will be made available at the beginning of week 2. This will provide you with time to read the articles beforehand so you can spend more time in the discussion boards.

DISCUSSION BOARDS: Throughout the semester, students will be presented with weekly discussion topics based on readings of research and review articles related to the topics listed on the course outline below. Students will submit their posts onto the appropriate discussion board on Canvas. Discussion boards will be unlocked on Mondays at 12:01 AM Central Time and locked on Sundays at 11:59 PM Central Time.

Please see the separate rubric (posted on Canvas) for a complete breakdown of how I will be grading the discussion boards. Briefly, each discussion board is worth 15 points. Students will be scored on three criteria: 1) evidence of critical thinking (maximum of 5 pts), 2) minimum posting requirements

(maximum of 5 points), and 3) responses to classmates and Dr. Hobbs (maximum of 5 points). Doing the minimum will only provide you with the opportunity to be scored and possibly earn 3 of the possible 15 points.

I do not expect you to spend 5 hours per week in each of these Discussion Boards. I expect, given the criteria listed in the rubric, for you to post **most days Monday-Friday**. I will not be keeping track of time spent on the Discussion Board, as it takes time to read and respond to the posts. You should be **wanting** to post every day. You do not need a peer-reviewed reference for every post, but if you are stating an opinion, you should provide support for it with data/evidence from a peer-reviewed source (not Wikipedia!).

Remember, Discussion Boards are for just that, **DISCUSSION**! Unless you are the first person answering the question(s) posted, you should **not** be starting a new thread. You should be replying to someone else. I am not concerned that everyone answers the posted question. The question or questions serve as a prompt for us to begin discussion. I want discussion, not simply posting for points.

What should this look like? (Example taken from Dr. Carlson's Bioethics of HeLa Cells)

Question: Do birds have fur?

Dr. Hobbs: Birds do not have fur, they have feathers. These feathers are used in mating dances and rituals. Many times, it is the male of the species that has the more ornamental feathers. This helps in attracting a mate (Leghorn 2016)

Reference: Leghorn F. 2016. Use of ornamental feathers in mating. Ornithology, 40:55-65. Doi:987.890/99

Reply from student 1: Dr. Hobbs, I disagree with you. Some birds do have fur. If we look at the ancient FleeceFlyer, it had a thick covering of purple fur, not feathers. It was a flying bird also. (Jurassic 2015)

Reference: Jurassic P. 2015. FleeceFlyer: The Original One-Eyed One-Horned Flying Purple People Eater. Wilson's Transactions, 56: 98-100.

Reply to student 1 from student 2: Do you have a picture of this? I would like to know how they determined this could fly? Was it large? This is amazing!

Yes, I will be in Discussion Board M-F, this is the reason I set it up. I love to discuss with you! I will play "devil's advocate". I will ask questions, etc. I am also **the only** person who gets credit for saying "Awesome! I agree!" or any phrases like this.

If you have any questions on the score you earned for the week, please simply email me. Also, please email any questions!

As this is an online format, tone and expression may not be readily discerned from your posts. Please avoid the use of online or text message abbreviations or symbols. Your posts should show respect for the views and experiences of your other classmates. I will remove any offensive posts from the board and these posts will not be considered for grading purposes.

TERM PAPER: Students will be assigned one term paper, 5-7 pages in length (excluding references, tables and figures, etc.) The due date for this paper Tuesday, May 16th at 11:59pm CT. The paper will be submitted via a TurnItIn link found in the General Course Materials module on Canvas. Detailed

instructions on how to format and submit the paper can be found on Canvas in the General Course Materials module. Late papers will be penalized **20% per day late**.

GRADING SCHEME AND GRADE ASSIGNMENT: Grades will be calculated based on the following assignments:

- 1. Syllabus Quiz (10 pts)
- 2. Introduction post and responding to classmates' posts using Yuja or VidGrid (10 pts)
- 3. Quiz over Week 1's Introductory Readings (10 pts)
- 4. Participation in weekly discussion boards (14 x 15pts each = 210 pts)
- 5. Term paper due at the end of the semester (50 pts; see term paper section for details).

The final course grade (out of 290 possible points) is assigned as a letter grade using the following scale:

A 93-100%	B 83-86%	C 73-76%	D 63-66%
A- 90-92%	B- 80-82%	C- 70-72%	D- 60-62%
B+ 87-89%	C+ 77-79%	D+ 67-69%	F < 60%

FYI, I do not round up grades! Therefore, if you have an 82.6%, you have earned a letter grade of a B-, not a B. Also, 1% = 2.9 points not 1 point. Grade assignments are final unless there is a calculation error.

COURSE OUTLINE:

Week	Beginning	Topic	Reading Assignment	Assessment
1	Jan 23	Introduction	Andersson & Iwasa, 1996;	Syllabus Quiz, Introductions Board
			Hosken & House, 2011	Introduction Quiz
2	Jan 30	Sexual Selection & Sexual Conflict	Hall et al., 2008; Kokko & Jennions, 2014	Discussion Board 1
3	Feb 6	Sexual Selection in Males and Females	Ospina-L. et al., 2017; Leary & Crocker-Buta, 2018	Discussion Board 2
4	Feb 13	Mating Systems	Emlen & Oring, 1977; Sih et al., 2017	Discussion Board 3
5	Feb 20	Introduction to Mate Choice	Andersson & Simmons, 2006; Jones and Ratterman, 2009	Discussion Board 4
6	Feb 27	Mechanisms of Mate Choice: Direct phenotypic benefits	Hoelzer, 1989; Møller & Jennions, 2001	Discussion Board 5
7	Mar 6	Mechanisms of Mate Choice: Sensory Bias	Ryan & Rand, 1990; Fuller et al., 2005	Discussion Board 6
8	Mar 13	SPRING BREAK		
9	Mar 20	Mechanisms of Mate Choice: Runaway Sexual Selection and Sexy Sons	Brooks, 2000; Chandler et al., 2012	Discussion Board 7
10	Mar 27	Mechanisms of Mate Choice: Indicator Mechanisms	Zahavi, 1975; Kodric-Brown & Brown, 1984; Walker-Bolton & Parga, 2017	Discussion Board 8

11	Apr 3	Postcopulatory Sexual Selection	Evans et al., 2003; delBarco- Trillo & Ferkin, 2004	Discussion Board 9
12	Apr 10	Parental Investment	Trivers, 1972	Discussion Board 10
13	Apr 17	Sex Role Reversal	Forsgren et al., 2004; Geberzahn et al., 2009	Discussion Board 11
14	Apr 24	Polyandry	Zeh & Zeh, 2003	Discussion Board 12
15	May 1	Female Promiscuity	Fitzpatrick et al., 2009; Panova et al., 2010	Discussion Board 13
16	May 8	Sexual Selection/Sexual Conflict in Humans	Mulder & Rauch, 2009; Puts, 2010	Discussion Board 14
17	May 15	Course Wrap-up	Term paper due Tue., May 16 by 11:59 PM CT	

ATTENDANCE POLICY

Your instructor may have indicated on their syllabus an attendance policy specific to their class. If so, that is the policy with which you must comply. If no other policy is stated, the University-wide attendance policy will apply.

Graduate Student Attendance Policy

ACADEMIC HONESTY POLICY

Academic honesty is essential to the existence and integrity of an institution of higher education. The responsibility for maintaining that integrity is shared by all members of the academic community. To further serve this end, the University of Nebraska at Kearney has a policy relating to academic integrity.

Graduate Academic Integrity Policy

Any student found in violation of this policy will be subjected to both academic and disciplinary sanctions. Violation of this policy includes Plagiarism, Cheating, Fabrication and Falsification, and Other Acts of Academic Dishonesty.

You are encouraged to make use of the online tools and resources provided at www.plagiarism.org/ to help you identify the various types of plagiarism, learn how to effectively paraphrase, as well as adequately cite your sources.

POLICY ON INCOMPLETES: Under very unusual circumstances an "Incomplete" may be assigned. To be considered for an "Incomplete" in Biology 886:

- 1. You must submit the reasons you cannot complete the scheduled work. This must include a copy of your class schedule and description of your responsibilities outside the classroom. This should be done in writing and include confirmation from your employer when appropriate.
- 2. You must specify the assignments you have missed and a schedule of plans to complete them

REPORTING STUDENT SEXUAL HARASSMENT, SEXUAL VIOLENCE OR SEXUAL ASSAULT

Reporting allegations of rape, domestic violence, dating violence, sexual assault, sexual harassment, and stalking enables the University to promptly provide support to the impacted student(s), and to take appropriate action to prevent a recurrence of such sexual misconduct and protect the campus community. Confidentiality will be respected to the greatest degree possible. Any student who believes they may be the victim of sexual misconduct is encouraged to report to one or more of the following resources:

- Local Domestic Violence, Sexual Assault Advocacy Agency 308-237-2599
- Campus Police (or Security) 308-865-8911
- Title IX Coordinator 308-865-8655

Retaliation against the student making the report, whether by students or University employees, will not be tolerated.

STUDENTS WITH DISABILITIES

It is the policy of the University of Nebraska at Kearney to provide flexible and individualized reasonable accommodation to students with documented disabilities. To receive accommodation services for a disability, students must be registered with the UNK Disabilities Services for Students (DSS) office, 175 Memorial Student Affairs Building, 308-865-8214 or by email unkdso@unk.edu

STUDENTS WHO ARE PREGNANT

It is the policy of the University of Nebraska at Kearney to provide flexible and individualized reasonable accommodation to students who are pregnant. To receive accommodation services due to pregnancy, students must contact the Student Health office at 308.865.8218. The following links provide information for students and faculty regarding pregnancy rights. https://thepregnantscholar.org/title-ix-basics/

https://nwlc.org/resource/faq-pregnant-and-parenting-college-graduate-students-rights/

UNK STATEMENT OF DIVERSITY & INCLUSION

UNK stands in solidarity and unity with our students of color, our Latinx and international students, our LGBTQIA+ students and students from other marginalized groups in opposition to racism and prejudice in any form, wherever it may exist. It is the job of institutions of higher education, indeed their duty, to provide a haven for the safe and meaningful exchange of ideas and to support peaceful disagreement and discussion. In our classes, we strive to maintain a positive learning environment based upon open communication and mutual respect. UNK does not discriminate on the basis of race, color, national origin, age, religion, sex, gender, sexual orientation, disability or political affiliation. Respect for the diversity of our backgrounds and varied life experiences is essential to learning from our similarities as well as our differences. The following link provides resources and other information regarding

D&I: https://www.unk.edu/about/equity-access-diversity.php

PROBLEMS/QUESTIONS

If you have questions, then ask or come see me or contact me via e-mail or phone. If you are having problems with the course, come see me before it is too late (not the week before your term paper is due or when the course is over).