

BIOL 490R Section 001: Evolution of Sex Schedule — Spring 2025**Schedule: This schedule is not fixed and is subject to change throughout the course.**

| Week | Date | Topics | Assigned Reading |
|------|--------|---|---|
| 1 | 08 Jan | Welcome and Course Introduction | How to Read and Understand a Scientific Article |
| 2 | 15-Jan | Discussion: Why Did Sex Evolve? | Ah-King and Nylin 2010: Sex in an evolutionary Perspective: Just another reaction norm |
| 3 | 22-Jan | Lecture: Evolution of Sex Chromosomes | Furman et al. 2020: Sex chromosome evolution: So many exceptions to the rules OR Bachtrog et al. 2014: Sex Determination: Why so many ways of doing it? |
| 4 | 29-Jan | Discussion on Sex Chromosomes (Lead: Group 1) | Blackmon et al. 2017: Sex Determination, Sex Chromosomes, and Karyotype Evolution in Insects |
| 5 | 05-Feb | Lecture: Sex Determination and Pathways | Capel 2017: Vertebrate sex determination: evolutionary plasticity of a fundamental switch |
| 6 | 12-Feb | Discussion on Pathways (Lead: Group 2) | Gonen et al. 2018: Sex reversal following a deletion of a single distal enhancer of Sox9 |
| 7 | 19-Feb | Lecture/Discussion: Mating Systems | Clutton-Brock 1997: Mammalian mating systems |
| 8 | 26-Feb | Lecture: Sexual Selection and Sexual Conflict | Watch Pre-Recording: Sexual Dimorphism Clutton-Brock 2009: Sexual selection in females |
| 9 | 05-Mar | Discussion: Sexual Selection (Lead: Group 3) | Lipshutz 2017: Divergent competitive phenotypes between females of two sex-role-reversed species |
| | 12-Mar | Spring Break – No Class | |
| 10 | 19-Mar | Lecture: Cooperative Reproduction and Eusociality | Clutton-Brock 2002: Breeding together: kin selection and mutualism in cooperative vertebrates & Nowak et al. 2010: The evolution of eusociality |
| 11 | 26-Mar | Discussion: Cooperation (Lead: Group 4) | Krakauer 2005: Kin selection and cooperative courtship in wild turkeys |
| 12 | 02-Apr | Lecture: Flexibility in Sex and Reproduction | Vega-Frutis et al. 2014: Sex change in plants and animals: a unified perspective |
| 13 | 09-Apr | Discussion: Sex Flexibility (Lead: Group 5) | Mahmud and Struwe 2020: when the going gets tough, the tough turn female: injury and sex expression in a sex-changing tree" |
| 14 | 16-Apr | Discussion: Sex Implications in Society | TBA |
| 15 | | | |
| 16 | 28-Apr | Final Assignment Submission Due Monday April 28, 2025, 11:59pm | |

