

**BIOLOGY 355 – EVOLUTION A01 10416****Fall 2021**

**Territory Acknowledgement:** *We acknowledge and respect the lak<sup>w</sup>əṅən peoples on whose traditional territory the university stands, and the Songhees, Esquimalt and WSÁNEĆ peoples whose historical relationships with the land continue to this day.*

**LECTURE SCHEDULE**

<u>Day</u>	<u>Date</u>	<u>Lecture Topic</u>	<u>Text chapter</u>
1	Sept 8	1. Introduction/history of evolutionary thought	1
<u>2</u>	<u>Sept 10</u>	2. Earth's history: early events	17
3	Sept 14	3. Earth's history: fossil record	17
4	Sept 15	4. Phylogenetic analysis I: concepts	2,16
<u>5</u>	<u>Sept 17</u>	5. Phylogenetic analysis II: resolving complexities/contradictions	16
6	Sept 21	6. Natural selection and adaptation	3
7	Sept 22	7. Origins of genetic variation	4
<u>8</u>	<u>Sept 24</u>	8. Genetics of natural selection	5
9	Sept 28	9. Variable natural selection: selection over time and space	5
10	Sept 29	MIDTERM EXAM #1	
<u>11</u>	<u>Oct 1</u>	10. Population genetics and genetic drift	7
12	Oct 5	11. Genetic drift, natural selection and inbreeding	7
13	Oct 6	12. Gene flow I	8
<u>14</u>	<u>Oct 8</u>	13. Gene flow II: dispersal and geographic ranges	8
15	Oct 12	14. Quantitative traits and phenotypic evolution	6
16	Oct 13	15. Constraints, plasticity and the genetics of quantitative traits	6
<u>17</u>	<u>Oct 15</u>	16. Species and speciation I	9
18	Oct 19	17. Species and speciation II	9
19	Oct 20	MIDTERM EXAM #2	
<u>20</u>	<u>Oct 22</u>	18. Evolution of sex	10
21	Oct 26	19. Sex ratios, sexual selection	10
22	Oct 27	20. Life history evolution	11
<u>23</u>	<u>Oct 29</u>	21. Cooperation and conflict I	12
24	Nov 2	22. Cooperation and conflict II	12
25	Nov 3	23. Coevolution: predators and prey	13
<u>26</u>	<u>Nov 5</u>	24. Coevolution: mutualism, competition, mimicry	13
28	Nov 9	25. Evolution of genes and genomes I	14
	Nov 10	READING BREAK	
	<u>Nov 12</u>	READING BREAK	
27	Nov 16	MIDTERM EXAM #3	
29	Nov 17	26. Evolution of genes and genomes II	14
<u>30</u>	<u>Nov 19</u>	27. Evolution and development I	15
31	Nov 23	28. Evolution and development II	15
32	Nov 24	29. Evolution and development III	15
<u>33</u>	<u>Nov 26</u>	30. Evolution and biogeography I	18
34	Nov 30	31. Evolution and biogeography II: phylogeography	18
35	Dec 1	32. Macroevolution	20
<u>36</u>	<u>Dec 3</u>	33. Wrap-up and review	

**BIOLOGY 355 – EVOLUTION A01 10419  
Fall 2021**

**Textbook for this course**

The textbook is **Evolution**, 4<sup>th</sup> ed. (2017) by Douglas J. Futuyma and Mark Kirkpatrick, Sinauer Associates/Oxford University Press. It is available in both hard copy and ebook. This is a required text. Earlier editions (3rd edition 2013; 2nd edition 2009) are also OK, though they are somewhat out of date.

**Evaluation/Grading**

<b>Midterm Exam #1.....</b>	<b>September 29.....</b>	<b>20%</b>
<b>Midterm Exam #2.....</b>	<b>October 20.....</b>	<b>20%</b>
<b>Midterm Exam #3.....</b>	<b>November 16.....</b>	<b>20%</b>
<b>Written assignment .....</b>	<b>due October 29.....</b>	<b>15%</b>
<b>Final Course Exam .....</b>	<b>December exam period.....</b>	<b>25%</b>

**Assignment of course grades (see UVic Undergraduate Calendar):**

A+ (90-100%)	B+ (77-79%)	C+ (65-69%)
A (85-89%)	B (73-76%)	C (60-64%)
A- (80-84%)	B- (70-72%)	D (50-59%)
		F (0-49%)

**UNIVERSITY POLICIES**

**Academic Integrity**

Students must abide by academic regulations as set out in the university calendar, and must observe standards of 'scholarly integrity' especially regarding plagiarism and cheating. The University Senate has approved changes to the Policy on Academic Integrity in the academic calendar to clarify that, "the unauthorized use of an Editor is prohibited, unless the instructor grants explicit written authorization". This regulation change is effective May 2017. Please refer to Academic Integrity policy here: <https://web.uvic.ca/calendar2020-09/undergrad/info/regulations/academic-integrity.html>.

**Copyright**

All course content and materials are made available by instructors for educational purposes and for the exclusive use of students registered in their class. The material is protected under copyright law, even if not marked with a ©. Any further use or distribution of materials to others requires the written permission of the instructor, except under fair dealing or another exception in the Copyright Act. Violations may result in disciplinary action under the Resolution of Non-Academic Misconduct Allegations policy (AC1300). Syllabi belong to the department through which the course is administered.

**Fair Dealing / Access Copyright Statement**

Please refer to: <https://www.uvic.ca/library/featured/copyright/fairdealing/statement/index.php> . UVic is committed to promoting, providing and protecting a supportive and safe learning and working environment for all its members.