

AP Biology

Course Instructors: Anmol Bhatia and Venkatesh Alagappan

Course Timing: Saturdays at 7:30 PM EDT

Course Description:

This course is for high school and middle school students looking to learn or get ahead in biology. Over the period of the course, the syllabus of AP Biology (as defined by AP) will be covered. Units in the course include the chemistry of life, cell structure and function, cellular energetics, the cell cycle, heredity, gene expression, natural selection, and ecology. The course will provide the knowledge to do well on the AP Biology Exam.

Materials:

Textbook(s): either Campbell Biology or Campbell Biology in Focus

Powerpoints: <http://www.dusd.net/ndunn/notes/>

Things to reference/additional resources:

<https://docs.google.com/document/d/1TeoRWpB-xGWVD6xx3E0qmYSV8cny7M64s1idxHQRoJM/edit>

<https://apcentral.collegeboard.org/pdf/ap-biology-course-and-exam-description-0.pdf?course=ap-biology>

<https://www.youtube.com/watch?v=ZVyoFZRMxbg&list=PLoGgviqq4847VchRdUdvbDPzsp9ResrjD>

Syllabus:

Note about the syllabus: given the length of the powerpoints and the fact that we have not covered them before, this is subject to change after the first 1 or 2 lessons

11/7/20

- 1. intro powerpoint
- 22. First chapter on evolution

11/14/20

- 23&24. Next chapters on natural selection

11/21/20

- 25&26. Finish history of life and evolution/natural selection
- Look at 1 or 2 frqs on evolution

11/28/20

- 2&3. Basic biochemistry and covering the properties of water

12/5/20

- 4. Carbon Molecules and Chemistry
- 5. Macromolecules (go as far as possible but not necessary to finish)

12/12/20

- 5. Macromolecules (finish if needed and review)
- 6. The cell (go as far as possible but not necessary to finish)

12/19/20

- 6. The cell (finish if needed and review)
- 7. Cell membranes

12/26/20

- No Class

1/2/21

- 8. Intro to metabolism
- 9. Cellular Respiration/Fermentation (go as far as possible but not necessary to finish)

1/9/20

- 9. Cellular Respiration/Fermentation (finish if needed and review)
- 10. Photosynthesis (go as far as possible but not necessary to finish)

1/16/20

- 10. Photosynthesis (finish if needed and review)

- 11. Cell Communication

1/23/21

- Review 2-11 (Big Idea 2 Part 1 Study Guide)
- Do Big Idea 2 Part 1 Practice

1/30/21

- 12. Cell Cycle
- Review

2/6/21

- 13. Meiosis
- Review

2/13/21

- 14. Mendel and Genes
- 16. Molecular Inheritance

2/20/21

- 17. From Gene to Expression
- 18. Gene Expression

2/27/21

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3/6/21

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3/13/21

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3/20/21

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3/27/21

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4/3/21

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4/10/21

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4/17/21

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4/24/21

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5/1/21

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