

Course Title: LIFE SCIENCE II A	Course Description
<p><b>Course No.</b> 3303                      <b>Grade level:</b> 7-12</p> <p><b>Text and Resource Options:</b>  A. <i>Concepts and Challenges in Life Science</i>, Part I; Globe Fearon  B. <i>AGS Biology</i>, Part I; AGS  C. <i>Science Workshop: Biology-Dynamic Processes</i>; Steck-Vaughn  D. <i>Science Workshop: Biology-Human Biology</i>; Steck Vaughn</p>	<p><b>Course Value:</b> *One Semester</p> <p><b>Credit Value:</b> 1 – 5 credits</p>
<b>Course Content: Key Content Standards and Course Objectives</b>	
<p>This course is based on a combination of the following life science standards:</p> <ol style="list-style-type: none"> <li><b>Cell Biology:</b> All living organisms are composed of cells (7-1a-f), a typical cell of any organism contains genetic instructions that specify its traits (7-2a-e), fundamental life processes of plants and animals depend on a variety of chemical reactions that are carried out in specialized areas of the organism’s cells (Biology: 9/12-1a-h).</li> <li><b>Physiology:</b> Organisms have a variety of mechanisms to combat disease (Biology 9/12-10a-e), plants and animals have predictable life cycles (2-2a-f), all organisms need energy and matter to live and grow (4-2a-c), plants and animals have structures for respirations, digestion, waste disposal and transport of materials (5-2a-g), the anatomy and physiology of plants and animals illustrate the complementary nature of structure and function (7-5a-g).</li> <li><b>Evolution:</b> Biological evolution accounts for the diversity of species developed through gradual processes over many generations (7-3a-e), adaptations in physical structure or behavior may improve an organism’s chance for survival (3-3a-e), evidence from rocks allows us to understand the evolution of life on Earth (7-4a-g).</li> <li><b>Ecology:</b> Organisms in ecosystems exchange energy and nutrients among themselves and with the environment (6-5a-e), sources of energy and materials differ in amounts, distribution, usefulness, and the time required for their formation (6-6a-c).</li> <li><b>Investigation and Experimentation:</b> Students will ask meaningful questions and conduct careful investigations addressing the content of the above life science and standards.</li> </ol>	<p>This course will focus on some of the grades 9-12 Biology/Life Science standards as well as the foundational standards from which the Biology/Life Science Standards are based. This course, along with Life Science IIB, can fulfill the Alternative Education’s Biology/Life Science requirement for the high school diploma. Note that some exploratory activities are used, but the lack of facilities that conform to state safety guidelines for laboratories precludes many laboratory activities.</p> <p>*Open entry/open exit</p>
<b>Methods of Study</b>	
<ol style="list-style-type: none"> <li>Students will complete all activities assigned.</li> <li>Students will participate in discussion with other class members and/or teacher.</li> </ol>	<p><b>Evaluation of Performance Standards</b></p> <ol style="list-style-type: none"> <li>Students will complete all assignments with a minimum of 70% accuracy.</li> <li>The supervising teacher will be satisfied with the quality of the student’s work.</li> <li>The student must receive a minimum score of 70% on a teacher assigned final evaluation.</li> </ol>

LIFE SCIENCE IIA  
Course Outline: 3303

**I. Textbook Assignment Options:**

- A. *Concepts and Challenges in Life Science*, Part I (5.0 credits)
- Read: Units 1 – 10.
  - Complete: all “Check” and “Apply” exercises in section reviews.
  - Complete: Unit “Challenges” activities (omit: “Reading Critically,” “Critical Thinking,” and “Finding Out More.”)
  - Complete one of the Extension Activities listed below.
- B. *AGS Biology*, Part I (5.0 credits)
- Read: Chapters 1-7.
  - Complete: all “Self-Checks” or “Lesson Reviews” and “Chapter Review” exercises.
  - Complete one of the Extension Activities listed below.
- C. *Science Workshop: Biology - Dynamic Processes* (2.5 credits)
- Read: Lessons 1 – 25.
  - Complete: All exercises after each lesson.
  - Complete one of the Extension Activities listed below.
- D. *Science Workshop: Biology - Human Biology* (2.5 credits)
- Read: Lessons 1 – 32.
  - Complete: All exercises after each lesson.
  - Complete one of the Extension Activities listed below.

**II. Extension Activity Options:**

1. Use the Internet or library to research Dian Fosse and Jane Goodall: two scientists who studied the behavior of apes. Write a 3-paragraph essay based upon your research comparing the work of the two women. Use Writing Rubric S II.
2. Choose 5 kinds of organisms that live in your neighborhood. Construct a chart explaining two ways that each organism has adapted to its environment.
3. Use the PBS website (PBS.org) to research information about photosynthesis, the process by which plants transform the sun’s energy into food energy. Write a 3-paragraph essay, or create a 5-slide PowerPoint presentation based upon your research. If you choose the essay, use Writing Rubric Exp. II.
4. Teacher generated activity, approved by the site administrator.

**III. Evaluation**

- See your teacher for a unit test.
- All Writing assignments must meet the proficient level of the rubric provided by the teacher.
- All textbook work must meet 70% accuracy level for a “C” grade.