

CORE CURRICULUM COMPONENT APPLICATION  
Texarkana College

**Part I: Course Information**

Course Type

- Existing/Restructured  
 New Course

Course Prefix & Number: **BIOL 1309**

Texas Common Course Number (TCCN): **1309**

Course Title: **Biology for Non Science Majors II**

Course Catalog Description

**Biology for Non-Science Majors II (4,3,3).** A continuation of BIOL 1408 with emphasis on human systems, nutrition, development, homeostasis, genetics, and evolutionary principles with applications to contemporary issues in human health and the environment.

Course Prerequisites:

Available Online?

- Yes  
 No

**Part II: THECB Course Objectives**

Upon successful completion of this course, students will:

1. Describe modern evolutionary synthesis, natural selection, population genetics, micro and macroevolution, and speciation.
2. Describe phylogenetic relationships and classification schemes.
3. Identify the major phyla of life with an emphasis on plants and animals, including the basis for classification, structural and physiological adaptations, evolutionary history, and ecological significance.
4. Describe basic animal physiology and homeostasis as maintained by organ systems.
5. Compare different sexual and asexual life cycles noting their adaptive advantages.
6. Illustrate the relationship between major geologic change, extinctions, and evolutionary trends.
7. Apply scientific reasoning to investigate questions and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
8. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
9. Communicate effectively the results of scientific investigations.

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10. Define modern evolutionary synthesis, natural selection, population genetics, micro and macroevolution, and speciation.
11. Describe phylogenetic relationships and classification schemes.
12. Identify the major phyla of life with an emphasis on plants and animals, including the basis for classification, structural and physiological adaptations, evolutionary history, and ecological significance.
13. Describe basic animal physiology and homeostasis as maintained by organ systems.
14. Compare different sexual and asexual life cycles noting their adaptive advantages.
15. Illustrate the relationship between major geologic change, extinctions, and evolutionary trends.

[See Attached Syllabus](#)

**Part III: THECB Skill Objectives**

- 1. Critical Thinking Skills:** to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- 2. Communication Skills:** to include effective development, interpretation and expression of ideas through written, oral and visual communication
- 3. Empirical and Quantitative Skills:** to include applications of scientific and mathematical concepts.
- 4. Teamwork:** to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal

**Part IV: Course Student Learning Outcomes (SLO)**

Upon successful completion of this course, students will:

1. Describe modern evolutionary synthesis, natural selection, population genetics, micro and macroevolution, and speciation.
2. Describe phylogenetic relationships and classification schemes.
3. Identify the major phyla of life with an emphasis on plants and animals, including the basis for classification, structural and physiological adaptations, evolutionary history, and ecological significance.
4. Describe basic animal physiology and homeostasis as maintained by organ systems.
5. Compare different sexual and asexual life cycles noting their adaptive advantages.
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<b>Skill Objective:</b>	<b>Critical Thinking Skills:</b> to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
<b>THECB Course Objective</b>	(SLO #4) Describe basic animal physiology and homeostasis as maintained by organ systems.
<b>Course Student Learning Outcome</b>	SLO #4) Describe basic animal physiology and homeostasis as maintained by organ systems.
<b>General Learning Activities</b>	Lab 18—Students study homeostasis in the lung, liver, and kidney. For the liver, the students are given three different blood sugar levels and are asked to determine the concentration of sugars before and after meals in various vessels and arteries. Students submit written lab reports and work in groups of 4. <a href="#">See Attached Activity.</a>
<b>Assessment</b> <i>Must Include Assignment &amp; Rubric</i>	Exam questions. <a href="#">See attached rubric.</a>

<b>Skill Objective:</b>	<b>Communication Skills:</b> to include effective written, oral, and visual communication
<b>THECB Course Objective</b>	SLO #4) Describe basic animal physiology and homeostasis as maintained by organ systems.
<b>Course Student Learning Outcome</b>	SLO #4) Describe basic animal physiology and homeostasis as maintained by organ systems.
<b>General Learning Activities</b>	Lab 18—Students study homeostasis in the lung, liver, and kidney. For the liver, the students are given three different blood sugar levels and are asked to determine the concentration of sugars before and after meals in various vessels and arteries. Students submit written lab

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<b>Assessment</b> <b><i>Must Include Assignment &amp; Rubric</i></b>	Exam questions. <a href="#">See attached rubric</a>

<b>Skill Objective:</b>	<b>Empirical and Quantitative Skills:</b> to include applications of scientific and mathematical concepts.
<b>THECB Course Objective</b>	SLO #4) Describe basic animal physiology and homeostasis as maintained by organ systems.
<b>Course Student Learning Outcome</b>	SLO #4) Describe basic animal physiology and homeostasis as maintained by organ systems.
<b>General Learning Activities</b>	Lab 18—Students study homeostasis in the lung, liver, and kidney. For the liver, the students are given three different blood sugar levels and are asked to determine the concentration of sugars before and after meals in various vessels and arteries. Students submit written lab reports and work in groups of 4. <a href="#">See attached activity.</a>
<b>Assessment</b> <b><i>Must Include Assignment &amp; Rubric</i></b>	Exam questions. <a href="#">See attached rubric</a>

<b>Skill Objective:</b>	<b>Teamwork:</b> to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal
<b>THECB Course Objective</b>	SLO #4) Describe basic animal physiology and homeostasis as maintained by organ systems.
<b>Course Student Learning Outcome</b>	SLO #4) Describe basic animal physiology and homeostasis as maintained by organ systems.
<b>General Learning Activities</b>	Lab 18—Students study homeostasis in the lung, liver, and kidney. For the liver, the students are given three different blood sugar levels and are asked to determine the concentration of sugars before and after meals in various vessels and arteries. Students submit written lab reports and work in groups of 4. <a href="#">See attached activity.</a>
<b>Assessment</b> <b><i>Must Include Assignment &amp; Rubric</i></b>	Exam questions. <a href="#">See attached rubric</a>