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| <b>Course Number</b><br><b>Course Name</b>                              | <b>BIOL 203 ECOLOGY AND EVOLUTION</b>  |
| <b>Credit Value</b><br><b>(Breakdown of theory and lab credits)</b>     | 3 Theory   |
| <b>Catalog Course Description</b>                                       | You will study the principles of evolution on the origin of the biosphere and the diversifications of life; the processes of natural selection and the origin of species, and the evolution of populations; evolutionary ecology with emphasis on behavioral, population, and community ecology, along with the impacts on the ecosystem, ecology, and conservation biology.   |
| <b>Student Learning Outcomes/Objectives /Competencies of the Course</b> | <ol style="list-style-type: none"> <li>1. Understand the scientific method and apply it to biological topics of genetics, evolution, ecology, and biodiversity.</li> <li>2. Apply quantitative reasoning and scientific thinking to real world problems.</li> <li>3. Identify and describe the basic principles of evolution.</li> <li>4. Analyze the relationships between the genetics of populations and evolution.</li> <li>5. Analyze the processes of speciation.</li> <li>6. Describe how the hierarchical classification scheme is used to categorize organisms.</li> <li>7. Describe how DNA research has modernized bio systematics.</li> <li>8. Compare and contrast the general characteristics of each of the living domains and kingdoms.</li> <li>9. Relate the structure of organisms to the way they function.</li> <li>10. Explain how the life histories of organisms are adapted for different environments.</li> <li>11. Relate the complexity of behavior to the overall complexity of an organism.</li> <li>12. Describe the ecological roles played by organisms in each kingdom.</li> <li>13. Compare basic ecological principles at the population and community levels of organization.</li> <li>14. Describe and compare energy relationships and the cycling of materials in ecosystems.</li> </ol> |
| <b>College-Wide Student Learning Outcomes</b>                           | <ol style="list-style-type: none"> <li>1. <i>Information Literacy</i><br/><i>Information Literacy will be assessed by semester project that will involve research of academic literature.</i></li> </ol>   |