

## Administrative Master Syllabus

### Course Information

<b>Course Title</b>	Environmental Biology
<b>Course Prefix, Num. and Title</b>	BIOL2306 – Environmental Biology
<b>Division</b>	Life Sciences
<b>Department</b>	Biology
<b>Course Type</b>	Academic WCJC Core Course
<b>Course Catalog Description</b>	Principles of environmental systems and ecology, including biogeochemical cycles, energy transformations, abiotic interactions, symbiotic relationships, natural resources and their management, lifestyle analysis, evolutionary trends, hazards and risks, and approaches to ecological research.
<b>Pre-Requisites</b>	TSI ELAR (Reading & Writing) requirement met; credit for or concurrent enrollment for MATH1314 College Algebra is recommended; concurrent enrollment in BIOL2106 Environmental Biology (lab) is recommended.
<b>Co-Requisites</b>	Enter Co-Requisites Here.

### Semester Credit Hours

<b>Total Semester Credit Hours (SCH): Lecture Hours:</b>	3:3:0
<b>Lab/Other Hours</b>	
<b>Equated Pay Hours</b>	3
<b>Lab/Other Hours Breakdown: Lab Hours</b>	0
<b>Lab/Other Hours Breakdown: Clinical Hours</b>	Enter Clinical Hours Here.
<b>Lab/Other Hours Breakdown: Practicum Hours</b>	Enter Practicum Hours Here.
<b>Other Hours Breakdown</b>	List Total Lab/Other Hours Here.

### Approval Signatures

Title	Signature	Date
<b>Department Head:</b>		
<b>Division Chair:</b>		
<b>VPI:</b>		

## Additional Course Information

**Topical Outline:** Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, and clinical or other non-lecture instruction).

1. Understanding Our Environment
2. Environmental Systems: Matter, Energy and Life
3. Evolution, Species Interactions and Biological Communities
4. Human Populations
5. Biomes and Biodiversity
6. Environmental Conservation
7. Food and Agriculture
8. Environmental Geology: Air Pollution, Mineral and Water Resources
9. Environmental Economics: Wastes, Policy and Sustainability

### Course Learning Outcomes:

**Learning Outcomes – Upon successful completion of this course, students will:**

1. Explain the structure and impact of biogeochemical cycles.
2. Describe energy transformations across trophic levels.
3. Illustrate abiotic/biotic interactions and symbiotic relationships.
4. Identify various types of natural resources, human impact on these resources, and common resource management practices.
5. Quantify and analyze the impact of lifestyle on the environment.
6. Depict evolutionary trends and adaptations to environmental changes.
7. Describe environmental hazards and risks and the social and economic ramifications.
8. Describe ecological and statistical techniques and approaches used in the study of environmental biology.

### Methods of Assessment:

Exams, quizzes, projects and case studies as appropriate

### Required text(s), optional text(s) and/or materials to be supplied by the student:

Text (required): Cunningham, W.P. et al. *Principles of Environmental Science, Inquiry and Applications*. (current edition), McGraw Hill.

### Suggested Course Maximum:

36

### List any specific or physical requirements beyond a typical classroom required to teach the course.

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**Course Requirements/Grading System:** Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course.

Lecture average		80%
Exam average (3-4 exams)	50-65%	
Other (quizzes, projects, case studies, etc.)	15-30%	
<u>Final Exam (includes at least 50% comprehensive material)</u>		<u>20%</u>
Total		100%

A -100-90%; B – 89-80%; C 79-70%; D – 69-60%; F- below 60%

### Curriculum Checklist:

- Administrative General Education Course** (from ACGM, but not in WCJC Core) – No additional documents needed.
- Administrative WCJC Core Course** – Attach the Core Curriculum Review Forms
  - Critical Thinking
  - Communication
  - Empirical & Quantitative Skills
  - Teamwork
  - Social Responsibility
  - Personal Responsibility
- WECM Course** – If needed, revise the Program SCANS Matrix and Competencies Checklist

### Core Curriculum Review Form

**Foundational Component Area:** Core 030: Life & Physical Science

**Course Prefix & Suffix:** BIOL2306

**Core Objective:**

**Critical Thinking Skills**—to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information

**Student Learning Outcome Supporting Core Objective:**

For each core objective, there must be at least two different methods of assessment.

SLO Status	Student Learning Outcome (SLO)	Learning Activity	Assessment
State Mandated	Identify various types of natural resources, human impact on these resources, and common resource management practices.	Group project related to humans interactions with the environment	Group activity, assignment or post-test
State Mandated	Quantify and analyze the impact of lifestyle on the environment	Group project related to humans interactions with the environment	Group activity, assignment or post-test
Choose a SLO status.	Insert SLO (from Administrative Master Syllabi)	Provide a brief name and description of the sample learning activity.	Provide a brief name and description of the sample quiz, exam, rubric, assignment, etc. for assessing the objective.

## Core Curriculum Review Form

**Foundational Component Area:** Core 030: Life & Physical Science

**Course Prefix & Suffix:** BIOL2306

**Core Objective:**

**Communication Skills**—to include effective development, interpretation and expression of ideas through written, oral and visual communication

### Student Learning Outcome Supporting Core Objective:

For each core objective, there must be at least two different methods of assessment.

SLO Status	Student Learning Outcome (SLO)	Learning Activity	Assessment
State Mandated	Identify various types of natural resources, human impact on these resources, and common resource management practices.	Group project related to humans interactions with the environment	Group activity, assignment or post-test
State Mandated	Quantify and analyze the impact of lifestyle on the environment	Group project related to humans interactions with the environment	Group activity, assignment or post-test
Choose a SLO status.	Insert SLO (from Administrative Master Syllabi)	Provide a brief name and description of the sample learning activity.	Provide a brief name and description of the sample quiz, exam, rubric, assignment, etc. for assessing the objective.

## Core Curriculum Review Form

**Foundational Component Area:** Core 030: Life & Physical Science

**Course Prefix & Suffix:** BIOL2306

**Core Objective:**

**Empirical and Quantitative Skills**—to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions

### Student Learning Outcome Supporting Core Objective:

For each core objective, there must be at least two different methods of assessment.

SLO Status	Student Learning Outcome (SLO)	Learning Activity	Assessment
State Mandated	Identify various types of natural resources, human impact on these resources, and common resource management practices.	Group project related to humans interactions with the environment	Group activity, assignment or post-test
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## Core Curriculum Review Form

**Foundational Component Area:** Core 030: Life & Physical Science

**Course Prefix & Suffix:** BIOL2306

### Core Objective:

**Teamwork**—to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal

### Student Learning Outcome Supporting Core Objective:

For each core objective, there must be at least two different methods of assessment.

SLO Status	Student Learning Outcome (SLO)	Learning Activity	Assessment
State Mandated	Identify various types of natural resources, human impact on these resources, and common resource management practices.	Group project related to humans interactions with the environment	Group activity, assignment or post-test
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