MONTGOMERY COUNTY COMMUNITY COLLEGE
BIO 115
Environmental Biology
3-3-0

CATALOG DESCRIPTION
This course is designed to explore three aspects of the environment: the interacting components of the environment apart from humans, the impact of humans and contemporary cultures on the environment, and local pollution problems and possible solutions.

REQUISITES
Previous Course Requirements
None

Concurrent Course Requirements
None

<table>
<thead>
<tr>
<th>LEARNING OUTCOMES</th>
<th>LEARNING ACTIVITIES</th>
<th>EVALUATION METHODS</th>
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<tr>
<td>1. Describe energy flow, nutrient cycling and the population dynamics of ecosystems.</td>
<td>Lectures Class Discussions Field Trips Presentations Written Exams Research Papers Case Studies</td>
<td>Quizzes Tests</td>
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<td>2. Examine current environmental problems in relation to the way the world naturally works and act accordingly.</td>
<td>Lectures Class Discussions Field Trips Presentations Written Exams Research Papers Case Studies</td>
<td>Quizzes Tests Research Papers Class Discussion</td>
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<td>3. Describe the complexity of environmental issues and the information necessary to alleviate or mitigate the problems.</td>
<td>Lectures Class Discussions Field Trips Presentations Written Exams Research Papers Case Studies</td>
<td>Quizzes Tests Research Papers Class Discussion</td>
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At the conclusion of each semester/session, assessment of the learning outcomes will be completed by course faculty using the listed evaluation method(s). Aggregated results will be submitted to the Associate Vice President of Academic Affairs. The benchmark for each learning outcome is that 70% of students will meet or exceed outcome criteria.
SEQUENCE OF TOPICS

1. Analysis of ecosystems by examining the flow of energy, the biogeochemical cycles, the principles of population growth
2. Energy flow in human cultures, the pathway of various nutrients and the growth of human population.
3. Natural world functions a detailed examination of local environmental problems.

LEARNING MATERIALS
Current periodicals pertaining to environmental issues; government documents from the national, regional, state and local environmental agencies; appropriate pamphlets and books as well as other appropriate resources will be used.

Other learning materials may be required and made available directly to the student and/or via the College’s Libraries and/or course management system.

COURSE APPROVAL:
Prepared by: Dr. Richard J. Andren Date: 6/1/1998
VPAA/Provost Compliance Verification: Dr. Bradley Gottfried Date: 1998

Revised by: Jerry Coleman Date: 3/2013
VPAA/Provost or designee Compliance Verification:
Victoria L. Bastecki-Perez, Ed.D. Date: 6/10/2013

Revised by: Debbie Dalrymple Date: 6/27/2016
VPAA/Provost or designee Compliance Verification:

Revised by: Debbie Dalrymple Date: 12/18/2017
VPAA/Provost or designee Compliance Verification: Date: 12/18/2017

This course is consistent with Montgomery County Community College’s mission. It was developed, approved and will be delivered in full compliance with the policies and procedures established by the College.