Miami Dade College

Course Syllabus

Course Information

Course Title: Introduction to Environmental Science

Subject and Number: EVR 1001

Course Description: This course is a survey of basic chemical, biological, and physical principles of environmental science and their applications to environmental issues. This course is appropriate for students in a wide range of disciplines or programs. Student learning outcomes: students will apply critical thinking to analysis and interpretation of environmental information and model output; students will apply the scientific method to explain natural experiences and phenomena; students will explain the basic chemical, biological, and physical principles of environmental science; and students will use empirical evidence to describe the historical and modern context of environmental problems and their solutions. Special Fee.

Class Number: LOREM IPSUM

Term and Year: LOREM IPSUM

Course Modality: MDC Modalities

Instructor Information

Name: LOREM IPSUM

Department and Campus: LOREM IPSUM

Office location: LOREM IPSUM

Office hours: *(communicate course office hours with students)*

Phone number: 123-456-7890

Email: LOREM IPSUM

Communication Policy: *(Faculty will establish protocols for communication with students)*

Required Textbook, Course Materials, and Technology

Required course materials: *(Textbook(s), library reserves, shark pack, and/or other required readings. Include ISBN Number and author(s))*

List optional/supplemental materials/OER: LOREM IPSUM

Technology & Technical Skill Requirements: *(Technology tools or equipment students need to complete this course are included)*

Grading Policy & Assessment Methods

List all activities, papers, quizzes, tests, etc. including grading scale used for final grade calculation. Relationships between the final grade and the learner's accumulated points or percentages/weights breakdown for each assessment or component of the course grade.

Include policy on late submissions.

For MDC Live and MDC Online courses, include policy regarding exams (e.g., ProctorU, Respondus Lockdown and Monitor, etc.)

If applicable, include guidelines for extra credit.

Incomplete Grades: View the college's procedures for Incomplete Grades

Miami Dade College Policies

Attendance Policy: *(Faculty include precise statements about illnesses/emergencies/ tardiness, missed assignments/make-up.)*

Students Rights and Responsibilities: *Policies addressing academic integrity and plagiarism, code of conduct, grade appeals, religious observations, services for students with special needs, student complaints, and other.*

For more information, visit the Student's Rights and Responsibilities page

Available Support Services & Resources
- Tutoring Labs and Technology – Learning Resources
- Virtual Tutoring through Learning Resources or Smarthinking Online Tutoring
- ACCESS: A Comprehensive Center for Exceptional Student Services
- Advisement
- Password and Login Technical Support
- Technical Support for MDC Live and MDC Online Courses
- SMART Plan

(Faculty select from the above if applicable and include additional course/campus specific resources)

Available Support Services & Resources
- Public Safety - Services

- **Hurricane and Other Natural Disasters:** In the event of a hurricane or other disaster, the class follows the schedule established by the College for campus-based courses. Please visit the MDC website or call the MDC Hotline (305-237-7500) for situation updates.

Course Description

EVR1001 | Introduction to Environmental Science | 3 credits

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Course Competencies

Competency 1:
The student will demonstrate knowledge of how the principal systems that support and/or affect life on Earth operate by:

- Listing the basic concepts of the physical, chemical, and biological factors involved in key environmental systems.
- Describing the process of natural selection as it operates to refine the fit between organism, habitat, and niche.
- Identifying the structure of an ecosystem and describing why sustained life on Earth is a characteristic of ecosystems.
- Describing how each major component of Earth's global system (atmosphere, hydrosphere, lithosphere, and biosphere) is involved and linked with biogeochemical cycles (e.g. the carbon cycle, nitrogen cycle, oxygen cycle, phosphorus cycle, and water cycle).
- Chart the flow of energy in ecosystems.

Learning Outcomes

- Environmental Responsibility

Competency 2:
The student will analyze the impact of human activities on the systems that support life on Earth by:

- Describing why human population growth is a fundamental environmental issue.
- Identifying human consumption patterns that affect environmental sustainability and the ability of future generations to meet their needs.
- Explaining that the misuse of soil reduces soil fertility, pollutes streams, and requires expensive remediation, and how to prevent this.
- Listing the various kinds of water use and describing problems associated with each.
- Describing challenges associated with managing terrestrial and oceanic resources.
- Describing local challenges to managing urban impact in South Florida.

- Summarizing the cause and effect of atmospheric problems.
- Examining the issue of global climate change from economic, climatological, social, political, cultural, and agronomic perspectives.

<u>Learning Outcomes</u>

- Cultural / Global Perspective
- Environmental Responsibility
- Social Responsibility

Competency 3:

The student will demonstrate knowledge of the economic, social, cultural, and political processes that determine the way that we interact with the environment by:

- Summarizing how decision making about environmental issues involves society, politics, culture, economics, values, and science.
- Evaluating patterns of resource acquisition and consumption and the subsequent impacts on the natural and human environments.
- Discussing how political lobbying groups impact resource development.
- Explaining how governmental, community and individual action can force companies to meet environmental standards.

<u>Learning Outcomes</u>

- Cultural / Global Perspective
- Environmental Responsibility
- Social Responsibility

Competency 4:

The student will acquire an environmental awareness based on the principles of sustainable development by:

- Discussing energy conservation education.
- Understanding a sustainable plan for addressing an environmental issue.
- Considering mitigation strategies and solutions to an environmental problem.
- Describing why solutions to environmental problems involve making value judgments based on scientific research as well as cultural, political, socioeconomic and other related considerations.
- Comparing the environmental benefits and challenges of urbanization.

<u>Learning Outcomes</u>

- Cultural / Global Perspective
- Environmental Responsibility
- Social Responsibility

Competency 5:

The student will identify Earth ethics issues facing the world today by:

- Analyzing the relationship between various worldviews and the ethical decisions made by society that impact the environment.
- Identifying how the ethical components of human population growth, poverty, resource depletion, and loss of habitat perpetuate environmental degradation.
- Applying the precautionary principle to questions of science, society and environmental justice.
- Understanding and analyzing the various demands for natural resources.
- Identifying how relationships and tolerance between persons, cultures, and other life encourages peace, integrity, resiliency, and a sustainable planet.

Learning Outcomes

- Cultural / Global Perspective
- Environmental Responsibility
- Social Responsibility