

# Environmental Education and Environmental Service Certificate Program

## Environmental Education-What is it?

A. Environmental Education focuses on environmental "literacy": learning about and caring for the total environment, understanding how humans interact with and are dependent on natural ecosystems, and developing critical-thinking skills to resolve environmental issues. (1978 Tbilisi Declaration, UNESCO).

With the following 5 objectives:

- Awareness--awareness and sensitivity to the total environment and its problems
- Knowledge--experience in and understanding of the environment
- Attitudes--concern for and participation in environmental improvement and protection
- Skills--identifying and solving environmental problems
- Participation --active involvement in resolving environmental problems.

B. The definition for "Environment-Based Education" has come about over the past 25 years, through research and experience of programs which use the **Environment as an Integrating Context** for learning (EIC). The purpose of EIC is to help students:

- Learn standards-based subject matter
- Increase thinking and problem-solving skills
- Develop basic life skills, such as cooperation and interpersonal communications.
- Gain an appreciation for their community and natural surroundings and how they are interrelated.

C. In the landmark 1998 study , "*Environment as the Integrating Context for Education*" researchers Gerry Lieberman and Linda Hoody, studied 40 schools from across the nation who were utilizing an environment based context for their programs and they found:

- Better performance on standardized measures of academic achievement in reading, writing, math, science, and social studies
- Reduced discipline and classroom management problems
- Increased engagement and enthusiasm for learning; and,
- Greater pride and ownership in accomplishments

The Lieberman and Hoody research found the following best approaches of successful educators:

- Breaks down traditional boundaries between disciplines

- Provides hands-on learning experiences, often through problem-solving and project-based activities
- Relies on team-teaching
- Adapts to individual students, and their unique skills and abilities, and
- Develops knowledge, understanding, and appreciation for the environment--community and natural surroundings.

D. Here in CA, a year 2000 classroom based study of 60 schools, again conducted by the State Education and Environment Roundtable, found that schools using environment-based model earned higher scores on standardized tests than their counterparts in more traditional settings.

E. Another report from the National Environmental Education and Training Foundation (NEETF) and the North American Association for Environmental Education (September, 2000) showed:

- Reading scores improve
- Math scores improve
- Students perform better in science and social studies
- Students develop the ability to transfer their knowledge from familiar to unfamiliar contexts
- Students learn to "do science" rather than just "learn about science".
- Classroom discipline problems decline
- Opportunities to learn at a high level are equalized among students.

#### F. Service Learning

Service learning is an instructional method that combines formal coursework with thoughtfully organized community service experiences. Service addresses community-identified needs while helping students meet academic, social and civic learning goals.

Through service and guided self-reflection, students learn about themselves and their relationship to the community around them. Service learning allows students to engage with real-world issues and social problems, and to work with community organizations to become "part of the solution."

#### G. What distinguishes service learning at CSUMB?

At CSUMB, service learning is more than just an innovative teaching strategy. Grounded in the university's commitments to diversity, ethical reflection and practice, and applied learning, service learning service learning enables students to develop the social, moral and multicultural civic skills necessary to build more just and equitable communities

#### Service Learning Combines Multiple Sources of Knowledge

- Discipline-based knowledge
- The student's own knowledge and experience
- The community's knowledge and experience.

H. At CSUMB, we emphasize the following four facets of the concept of service:

- Diversity: issues related to service in a multicultural society
- Compassion: understanding the world from another person's perspective
- Justice: how power, privilege and oppression affect the service setting
- Social Responsibility: an individual's commitment to and engagement with civic society

By explicitly making these issues part of the curriculum, students actively clarify their own conception of service as they participate in the community. Service learning enables moral and civic learning to become a component of the curriculum. Learning becomes a tool for both individual and social betterment.

And when we bring service learning and environmental education together we are able to add the further value of enabling students to develop the social, moral and multicultural civic skills necessary to build more just and equitable communities.

I. Laura Lee turns this upside down--starting with the Action--the Service if you will.

**ACTION/SERVICE  
AWARENESS  
SKILLS  
KNOWLEDGE  
BEHAVIOR AND ATTITUDE CHANGE**

J. Environmental education builds from a core of key principles that inform its approach to education. Some of these important underpinnings are:

**Systems--**Systems help make sense of a large and complex world. A system is made up of parts that can be understood separately. The whole, however, is understood only by understanding the relationships among the parts. The human body can be understood as a system; so can galaxies. Organizations, individual cells, communities of animals and plants, and families can all be understood as systems. And systems can be nested within other systems.

**Interdependence--** Human well being is inextricably bound with environmental quality. Humans are a part of the natural order. We and the systems we create--our societies, political systems, economies, religions, cultures, technologies--impact the total environment. Since we are a part of nature rather than outside it, we are challenged to recognize the ramifications of our interdependence.

**The importance of where one lives--**Beginning close to home, learners forge connections with, explore, and understand their immediate surroundings. The

sensitivity, knowledge, and skills needed for this local connection provide a base for moving out into larger systems, broader issues, and an expanding understanding of causes, connections, and consequences.

**Integration and infusion**--Disciplines from the natural sciences to the social sciences to the humanities are connected through the medium of the environment and environmental issues. Environmental education offers opportunities for integration and works best when infused across the curriculum, rather than being treated as a separate discipline or subject area.

**Roots in the real world**--Learners develop knowledge and skills through direct experience with the environment, environmental issues, and society. Investigation, analysis, and problem solving are essential activities and are most effective when relevant to the real world.

**Lifelong learning**--Critical and creative thinking, decision making, and communication, as well as collaborative learning, are emphasized. These skills are essential for active and meaningful learning, both in school and over a lifetime.