

SOUTHEAST MISSOURI STATE UNIVERSITY

approved
GC 1-25-00
(Skeldon/3/1/99)

Environmental Science Program

GI 635

AP Institute: Environmental Science

New: Fall 1999

I. Catalog Description and Credit Hours of Course:

A course designed to assist high school environmental science teachers in offering Advanced Placement Environmental Science as part of their curriculum. 8 days, from 8a.m. - 5p.m. each day, lab and lecture. Summer. 3 credit hours.

II. Prerequisites:

The student/applicant is a certified high school science teacher.

III. Objectives of the Course:

- A. To prepare students to teach AP Environmental Science in their high schools.
- B. To provide students with hands-on experience with active learning (classroom, laboratory, and field) exercises that may be used in instruction of their AP Environmental Science course.
- C. To provide students with concise summaries of key concepts in fundamental areas of environmental science.
- D. To provide students with an extensive compilation of topic-related resources that may be useful in development and instruction of their AP Environmental Science course.

V. Expectations of Students:

To attend class and actively participate in class discussions and in all classroom, laboratory, and field exercises.

V. Course Outline:

The following outline of course content and time allocations is tentative and will require adjustment each time the course is offered to accommodate variations in the availability of participating faculty.

- | | | |
|-----|---|---------|
| A1. | Introduction to AP Environmental Science
Instructors: Dr. Steve Overmann and Mr. Rodney Harris | 1 day |
| B1. | Environmental Science and the Internet
Instructor: Dr. Steve Overmann | 1/4 day |
| B2. | Environmental Science Software and Simulations
Instructor: Dr. Steve Overmann | 1/4 day |
| B3. | Plant Competition and Experimental Design & Analysis
Instructor: Dr. Steve Overmann | 1/2 day |
| C1. | Aquatic Concepts and Exercises
Instructor: Dr. Joe Bidwell | 3/4 day |
| C2. | Environmental Microbiology Concepts and Exercises | 1/4 day |

Participating Faculty:

AP Environmental Science Instructor

Mr. Rodney Harris
Science Academy of Austin
LBJ High School
Austin, Texas

Co-Lead Instructor

Southeast Missouri State University Faculty

Dr. Michael (Mike) Aide
Department of Geosciences

Soil Science Concepts and Exercises

Dr. Muhammed Ali
Department of Chemistry

Environmental Chemistry Concepts and Exercises

Dr. Joseph (Joe) Bidwell
Department of Biology

Aquatic Concepts and Exercises

Dr. James (Jim) Champine
Department of Biology

Environmental Microbiology Concepts and Exercises

Dr. Gary Cwick
Department of Geosciences

Remote Sensing and GIS Concepts and Exercises

Dr. Phillip (Phil) Crawford
Department of Chemistry

Environmental Chemistry Concepts and Exercises

Dr. John Kraemer
Department of Biology

Environmental Health and Law Concepts and Exercises

Dr. William (Bill) McKinney
Department of Philosophy

Environmental Ethics Concepts and Exercises

Dr. Stephen (Steve) Overmann
Department of Biology

Course Coordinator and Co-Lead Instructor

Dr. William (Bill) Weber
Department of Economics

Environmental Economics Concepts and Exercises