

Department: Science Course Title: Environmental Science Online Course #: 541O-WEB

DESCRIPTION OF COURSE:

Grade 11, 12; 1 Credit; Prerequisite: Course 511

Students will use popular course management software on the Internet to learn about ecosystem structure and function in terms of material and energy utilization and distribution. Students will learn about the natural mechanisms that ecosystems use to enable homeostasis, and they will investigate what happens when those mechanisms fail. Other topics will include animal and human population biology, problems and solutions associated with human population growth, inorganic and organic waste management, and pollution control. This course is not a litany of environmental woes! Rather the course focuses on understanding natural mechanisms, considering human impact on natural mechanisms, and seeking solutions to the problems caused by human impact on natural mechanisms. Achievement will be demonstrated through a wide variety of quizzes, tests, reports, and performance evaluations.

This course will be taught completely over the Internet, and students taking this course will be released from physically attending class each day during the period their Online Zoology course is scheduled. Students will, however, be required to attend periodic on-campus testing sessions throughout the course. Students will be responsible for providing and maintaining their own computer equipment, and they will be required to provide their own transportation to and from school when necessary during the marking period in which their course is scheduled.

REQUIRED TOPICS OF STUDY	SUGGESTED INSTRUCTIONAL TIME	STANDARDS/ ASSESSMENT ANCHORS
The Aim of Environmental Science	1 Week	4.3.12.C / 4.8.10.A
Ecosystems... Description, Function, Homeostasis, and Change	3 Weeks	4.6.10.A / 4.6.10.B / 4.6.12.A / 4.7.12.A
Population Dynamics	2 Weeks	4.6.10.A / 4.7.12.C / 4.8.10.D / 4.3.12.A / 4.6.12.C
Food Production and Distribution	3 Weeks	4.2.10.A / 4.4.10.A / 4.4.10.C / 4.4.10.D / 4.4.12.D / 4.5.10.B / 4.4.12.A
Critical Factors of the Soil System	1 Week	4.3.10.B / 4.4.10.B / 4.6.10.A / 4.6.12.A
Principles of Sustainability in Agriculture and Resource Use	4 Weeks	4.2.12.A / 4.4.10.B / 4.4.12.C / 4.2.10.A / 4.2.10.B / 4.2.10.C / 4.2.12.A / 4.2.12.B / 4.2.12.C
The Economics of Environmentalism	1 Week	4.2.12.B / 4.1.12.E / 4.4.12.C

INSTRUCTIONAL RESOURCES:

Environmental Science Online is an Internet-based course presented through interactive lessons and web quests incorporated into a Moodle Learning Management System software installation.