

CONSERVATION OF NATURAL RESOURCES

Conservation is designed for students who have a desire to work outdoors and a concern for our environment and its natural resources.

COURSE OBJECTIVES

1. To develop a better understanding of our natural resources and the reasoning for preserving them.
2. To provide students with the skills and experience necessary so they may seek employment in the areas of their choice.
3. To provide students with the skills and experience necessary so they may continue their education and successfully obtain a college degree in an area of their interest.
4. Assist students in developing and maintaining positive attitudes, good work ethics, leadership, and communication skills.
5. Provide leadership and opportunities as part of our program, through F.F.A., VICA, Explorers, Environmental Competitions, and extra-curricular activities.
6. Develop a personal attitude that "we can make a difference by working together in building a better natural environment."

SPECIFIC STUDENT ACTIVITIES

The following is a brief listing of student activities and program areas:

1. Developing and Implementing a Forest Management Plan
 - a) Conducting a site survey of forest
 - b) Cruise tallying - measuring tree height and diameter
 - c) Identifying thinning and harvesting procedures
 - d) Long range management planning
 - e) Felling and moving trees and chain saws and other equipment
2. Guiding and Wildlife Interpretation
 - a) Leadership training and small business management
 - b) Planning appropriate expeditions for groups
 - c) Survival and emergency skills
 - d) Demonstrating proper techniques and use of backpacking, hiking, and outdoor activity gear
 - e) Skilled use of topographic maps and compass
 - f) Understanding of wildlife habits and activities

3. Equipment Operation
 - a) Operate, tune up and service many types of small air-cooled engines such as chain saws
 - b) Overhaul and rebuild small engines using mechanical tools and specialty equipment, resurfacing valves, installing pistons and rings and rebuilding fuel systems
 - c) Safely operate and maintain large equipment; tractors, loaders, bulldozers, and specialized equipment

4. Park Management and Operations
 - a) Development and supervision of a park
 - b) Construct and maintain trail systems
 - c) Provide visual descriptions for visitors to observe and understand wildlife
 - d) Survey and construct ponds, trails, and logging roads

5. Greenhouse Management
 - a) Supervise an operating greenhouse area
 - b) Maintain heating, watering, and ventilation systems
 - c) Care for forest and floral stock
 - d) Monitoring temperature, moisture, and nutrient levels
 - e) Constructing research areas for hydroponics, ornamental pools and waterfalls
 - f) Display and sale of products, maintaining accurate accounts of funds

SUGGESTED EDUCATIONAL BACKGROUND AND ABILITIES

During the next decade, the demand and development of environmental careers will double. Every year new environmental jobs are created. All of these jobs require competitive academic skills, positive attitudes and hard work. Employers will be looking for candidates who are able in the following areas:

- a) Attitude - displaying a positive work and learning ethic. Ability to understand how to do the job/task correctly and completely.

- b) Reading and Writing - Conservation students should be able to conduct research and prepare documents which others can use such as wildlife management plans or soil test results.

- c) Maturity - Using tools and operating equipment safely. Assisting others in providing safe working habits and conditions.

- d) Academics - Conservation students like many other sciences is growing and changing quickly. Students must have the desire to absorb new materials and collect reference materials in an organized notebook for future use.

WHAT IS THE OUTLOOK FOR STUDENTS IN THE CONSERVATION PROGRAM?

Students from our program are currently employed in many environmental careers. New and emerging occupations are created every year as well as vacancies opened by people retiring. There is no shortage of jobs for students with personal drive, academic and personal motivation. Some of these occupational areas are listed as follows:

Forest Industry - Forest technician, nursery operations, equipment operator, logger

Parks & Environmental Centers - Naturalist, interpreter, guide, park maintenance, program technician

State & County - D.E.C. occupations, cooperative extension opportunities, soil & water district opportunities, parks and forest preserves, animal rehabilitation occupations

Landscape Industry - equipment operations, landscape design, consultant, ground crew, greens keeper technician, greenhouse occupations, nursery occupations

Private Industry - taxidermist, guide, charter captain, logging, landscaping, small engine repair & service, environmental occupations

There will be two (1/4) unit optional modules of Intro to Occupations taught with the Conservation program. If you need the two required modules, please see your guidance counselor who will make special arrangements with us to provide this sequence for you. The Occupational Science (1/4) unit is provided as part of the Conservation program and will not require special arrangements.

COLLEGE OPPORTUNITIES

Niagara County Community College

ORN 486 Pesticides – 1 credit

ORN 495 Introduction to Soil Science – 1 credit