SANTA CRUZ COUNTY REGIONAL OCCUPATIONAL PROGRAM

Ornamental Horticulture

CBEDS Title: Horticulture and the Environment

CBEDS Number: 4050

Career Path: Agriculture & Natural Resources

Course Description: This class is designed to acquaint the student with theories and principles of plant biology in conjunction with hands-on practical application in production and maintenance of plants for ornamental purposes. Topics include plant growth needs, botanical classification, plant physiology, plant reproduction, plant diseases and pests, planting medias, management practices, selection and care of plants, and careers in Ornamental Horticulture. Lab activities focus on the utilization of the school site greenhouses and nursery facility. Curriculum will include problem solving, creative thinking, written, visual, and verbal communication skills.

Job Titles: Job Title       DOT codes-
Horticultural Worker I    405.684-014
Greenskeeper I           406.137-010
Plant Propagator         405.361-010
Landscape Gardener       408.161-010

Prerequisites: Agricultural Science and Technology encouraged

COURSE OUTLINE

Upon successful completion of this course, students will be able to demonstrate the following skills necessary for employment or further education and training:

I. Career Preparation Standards (Note: additional hours for Career Preparation Standards are integrated into instruction in content area standards).
   A. Understand how personal skill development--including

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<td>Intern</td>
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positive attitude, honesty, self-confidence, time management, and other positive traits--affect employability.

1. Demonstrate an understanding of classroom policies and procedures.
2. Define business ethics and explain the importance of ethical standards in the business environment.
3. Discuss the laws that apply to sexual harassment and discuss tactics for handling harassment situations.
4. Discuss importance of personal skills in a business environment i.e. positive attitude, self-confidence, honesty, perseverance, self-discipline.
5. Define personal hygiene and identify acceptable business attire for the industry.
6. Prioritize tasks and meet deadlines.

B. Understand principles of effective interpersonal skills, conflict resolution and negotiation.
1. Discuss and demonstrate the dynamics of conflict resolution and negotiation and their importance within the business environment.
2. Work cooperatively, share responsibilities, accept supervision and assume leadership roles.
3. Demonstrate cooperative working relationships and prepare etiquette across gender and cultural groups.

C. Understand the importance of good academic skills, critical thinking and problem-solving skills in the workplace.
1. Recognize the importance of good reading, writing, math, and keyboarding skills in the business environment and implement a plan for self-improvement as needed.
2. Apply estimation, measurement and calculation skills to business applications, including whole number math, decimals and fractions, counting and monetary function and use of tables as appropriate to industry.
3. Read, write and give directions.
4. Exhibit critical and creative thinking skills and logical reasoning skills.
5. Recognize problem situations; identify, locate and organize needed information or data; and propose, evaluate and select from alternative solutions.

D. Understand principles of effective communication.
1. Read and implement written instructions, technical manuals, written communication and reference books.
2. Present a positive image through verbal and nonverbal communication through use of appropriate methods.
3. Demonstrate proper etiquette in business communications, including an awareness of requisites for international communications (i.e. customs, time zones).

4. Demonstrate writing/editing skills i.e. write, proofread, and edit business correspondence, use correct grammar, punctuation, capitalization, vocabulary and spelling and select appropriate forms of technology for communication.

E. Understand occupational safety issues, including avoidance of physical hazards
   1. Discuss and implement good safety practices, including avoidance and reporting of physical hazards in the work environment, safe operation of equipment and proper handling of hazardous material.
   2. Apply sound ergonomic principles in organizing one’s workspace.

F. Understand career paths and strategies for obtaining employment
   1. Explore career opportunities and projected trends, investigate required education, training and experience, and develop and individual education plan.
   2. Identify steps for setting goals and writing personal goals and objectives.
   3. Examine aptitudes related to career options; relate personal characteristics and interests to educational and occupational opportunities.
   4. Develop job acquisition documents, including job application, resume, appropriate cover and follow-up correspondence and portfolio.
   5. Identify and demonstrate effective interviewing techniques.

G. Understand and adapt to changing technology.
   1. Identify and demonstrate use of computer hardware and peripherals.
   2. Identify and explain use of computer software.
   3. Identify and use operating systems.
   4. Input and retrieve information.
   5. Understand the importance of lifelong learning in adapting to changing technology.

II. Ornamental Horticulture Skills
   A. Demonstrate knowledge of overall Horticulture Industry.
   B. Define various types Horticulture Industries.
1. Define kinds of plants grown, classes: wholesale and retail, job opportunities, outlook, national and statewide statistics, growth and expansion for Nursery industry.

2. Define divisions, kinds of plants grown, production, design, growing areas in California, job opportunities, outlook, national and statewide statistics, growth and expansion for Floriculture industry.

3. Define design, construction, maintenance, job opportunities, outlook, national and statewide statistics, growth and expansion, architect for Landscape industry.

4. Define production, maintenance, job opportunities, outlook, national and statewide statistics, growth and expansion for Turf industry.

C. Identify, demonstrate and understand safe usage of hand tools.

D. Identify, demonstrate and understand safe usage of power equipment.

E. Demonstrate knowledge of plant anatomy and functions.
   1. Recognize plant parts, functions and uses.

F. Understand different environmental standards as factors that influence growth.

G. Display knowledge of types of soils and utilization.

H. Understand the various use of fertilizers.

I. Identify and understand various nursery structures and their use.

J. Demonstrate knowledge of nursery stock: definition, examples, seasons, prices, problems, and examples.

K. Understand treatments to cuttings or seeds.
   1. Know how to stimulate plant reproductive growth.

L. Understand the need and process to sexually propagate plants.

M. Demonstrate and understand asexual propagation.

N. Demonstrate and understand potted plant production.

O. Demonstrate and understand general landscape maintenance.

P. Recognize pests and diseases biology and control.

Q. Demonstrate and know how to use different pruning equipment.

R. Understand and demonstrate planning equipment and design techniques.

S. Demonstrate how to care and maintain variety of lawns/turfgrasses.

T. Demonstrate knowledge and usage of wood and carpentry products and work.

U. Demonstrate knowledge and usage of concrete and masonry products and work.
V. Demonstrate knowledge of pools and sprinklers landscaping issues.
W. Demonstrate knowledge of the safe and appropriate use of garden electrical, including low voltage lighting and installation and underwater lighting.
X Learn business techniques for operating a retail landscape nursery.

Maximum hours of instruction: Classroom_______ Internship ______

Note: Internship or work based learning hours will vary in number and area of concentration within the scope of the course outline, depending upon community training site, interest and skill level of each student.

Instructional Strategies: Lecture, simulations, guest speakers, field trips, role play, demonstration, lab, applied practice.


Articulation:

UC A-G: This class has been submitted for UC “G” credit at Soquel High School.

Academic Credit:

Industry/licensing requirement met:

Certificates: Course completion certificate attached. Competencies should match major sections of the course outline.

Revised: {enter date}