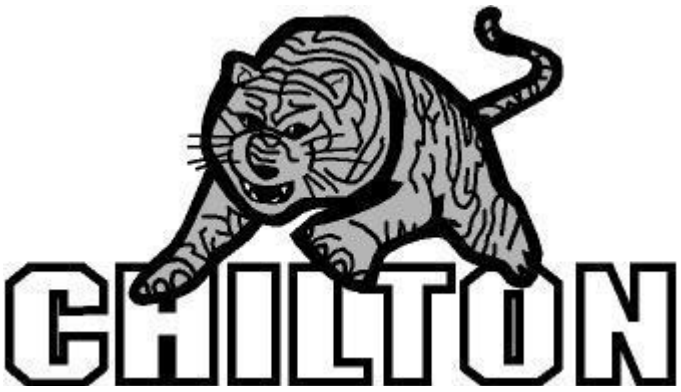

Greenhouse Management Syllabus

Week:	# days	Topics:
1	3	Introductions, Career Portfolios, Poinsettia care Plant Fast Plants
2	4	Horticulture Industry & Horticulture Specialties Identify Major Plant Groups, Plant Parts & Functions Fast Plants Lab Work, Flower Dissection
3	5	Plant Processes-transpiration, photosynthesis, and respiration Plant Hormones Seed Parts & Functions, Asexual vs. Sexual Reproduction Propagation Methods (Lab)
4	5	Poinsettia Environmental Needs (dark period) Terrariums and Plant Environments Soils, Layers of Soil, Properties and Sizes of Soil Particles
5	5	Living Organisms in Soil Plant Nutrition Nutrient Deficiencies
6	5	A biotic Effects on Plants Abiotic Disorders Biotic Influences on Plants
7	5	Plant Diseases Insect Damage Identification Plant Health Care
8	5	Floral Design, Boutonnieres & Corsages Vegetable Gardening
9	3	Landscape Design Process

Wrap up
Prepare for Final Exam

Greenhouse Management Curriculum: Articulated with Fox Valley Tech.

Grades: 9-12
Credit: 0.5
Prerequisite: None
Course Duration: 1 Term (9 weeks in block)

Course Content: Greenhouse Management is designed to allow students hands on opportunities working with plants in the greenhouse. Students will plant seeds, learn how to properly propagate plants, transplant seedlings, pinch buds and assist in the daily care and maintenance of plants. Plant crops will vary dependent upon the term the class is taken. Fall term will focus on poinsettias, planting seeds and forcing bulbs. Spring terms classes will focus on bedding plants and Easter lilies. Activities include creating floral designs, corsages, boutonnieres, and terrariums. Other topics covered will consist of: houseplants, environmental factors on plants, health care and maintenance, plant diseases and identifying pests.

Objectives:

1. To outline the Career Portfolios project
2. To set up Fast Plants lab
3. To introduce students to poinsettia plants and greenhouse expectations
4. To discuss the history of poinsettias
5. To brainstorm business in Chilton that relate to Horticulture
6. To identify the divisions of Horticulture

7. To describe Horticulture developments in history
8. To explain the current trends in the industry
9. To describe the importance of Horticulture to society
10. To identify the different working conditions in horticulture specialty areas
11. To relate their knowledge, skills, attitudes and interests to a horticulture specialty area
12. To describe the impact of the economy and marketing trends in horticulture

13. To categorize plants based on their use, taxonomy and growing habits
14. To explain the parts and functions of the external and internal leaf
15. To identify the purpose of the stoma, guard cells and chloroplasts
16. To draw a leaf and label the veins, spine, midrib and petiole
17. To record lab data on Fast Plants

18. To brainstorm the purposes of the stem and roots
19. To discuss the internal and external stem structures and functions
20. To define monocots and dicots
21. To contrast the differences between dicots and monocots
22. To identify types of roots
23. To describe how root development relates to nutrient and water uptake
24. To describe the movement of water and nutrients through the plant
25. To describe how plant structure relates to photosynthesis and transpiration and respiration

26. To explain seed germination
27. To list special seed treatments necessary for germination
28. To dissect a seed and label the parts and their functions
29. To brainstorm environmental requirements for seed germination
30. To choose a packet of seeds and plant

31. To list the parts of a flower and explain their function
32. To dissect a flower and label the parts of it
33. To compare and contrast different flower parts on different species
34. To discuss incomplete and complete flowers
35. To describe the process of flowering, pollination, fertilization and fruit development
36. To list plant hormones and how they affect plants

37. To explain the difference between asexual and sexual propagation of plants
38. To describe the role of the shoot in propagation, branching and plant form
39. To read packets on asexual reproduction and complete worksheet
40. To practice taking plant cuttings in greenhouse
41. To list methods of asexual propagation and briefly explain each

42. To discuss the history of terrariums
43. To explain how to prepare a container for planting
44. To describe the controlled environment of a terrarium and how it affects plants
45. To identify types of plants used in terrariums and list disorders of plants
46. To identify cultural conditions that affect the growth of plants in terrariums
47. To list and identify insects that affect terrarium plants
48. To plant a terrarium

49. To discuss what soil is
50. To identify the three layers of soil
51. To describe the differences between silt, sand and clay
52. To define loam soil and identify it's components
53. To brainstorm types of media used in horticulture
54. To identify the differences in media types
55. To identify other living organisms in the soil
56. To discuss plant nutrition
57. To identify symptoms related to nutrient deficiencies and excesses
58. To list abiotic effects on plant health such as: climate, temp, location, water & drainage
59. To identify symptoms related to abiotic disorders

60. To list and identify biotic causes of plant disorders
61. To describe the biotic factors that affect plant health such as diseases and insects
62. To identify symptoms and signs related to disease and insect stress
63. To describe the components of Plant Health Care (PHC)
64. To list steps in a PHC
65. To describe principles of pest management in PHC

66. To read about gardens
67. To create a garden plan
68. To complete a chart on growing requirements of garden plants

69. To discuss floral arrangements and accessories
70. To construct a bow to be used in an arrangement

71. To identify the types of flowers used in floral design
72. To list and describe the nine basic principles of floral design
73. To identify the six basic floral shapes
74. To create a floral arrangement using the design principles
75. To create corsages and boutonnieres

76. To describe the process of designing and installing a landscape
77. To list and describe the sources for horticulture plants and materials
78. To describe the process of growing and maintaining plants in the garden and landscape

Competencies:

1. Describe the Horticulture Industry
2. Grow and care for poinsettia crop
3. Identify and differentiate between the primary professional specialties within Horticulture
4. Set up Fast Plant Nutrition Study
5. Begin a Career Portfolio
6. Identify major groups of plants used in the Horticulture Industry
7. Explain plant anatomy and morphology
8. Plant a crop from seed
9. Describe major processes that affect plant growth and development
10. Differentiate between the benefits and disadvantages of sexual and asexual propagation
11. List methods of asexual propagation
12. Propagate plants using different methods
13. Describe abiotic influences on plant health
14. Describe biotic influences on plant health
15. Identify components of plant health care
16. Create a garden plan
17. Explain how to maximize garden produce and space
18. Create a floral arrangement using the design principles
19. Create a corsage and boutonnieres
20. Design a landscape using the landscaping principles
21. Describe the process of growing and maintaining plants in a landscape