

**Course Title: Floral Design and Interiorscaping**

<b>Unit: 1</b>	<b>Career Opportunities</b>
----------------	-----------------------------

<b>Content Standard(s) and Depth of Knowledge Level(s):</b>	Students will: 1. Identify career opportunities in the floral industry.
---	--

<b>Learning Objective(s) and Depth of Knowledge Level(s):</b>	Students will: 1. Identify career opportunities available in the floral design industry. 2. Describe the training and duties of various jobs in the floral design industry. 3. Prepare an employability portfolio in the floral design industry. 4. Prepare for a job interview in the floral design industry.
---	--

<b>Essential Question(s):</b>	What criteria should floral design students use to select a career in floral design industry?
-------------------------------	---

<b>Content Knowledge</b>	<b>Suggested Instructional Activities Rigor &amp; Relevance Framework (Quadrant)</b>	<b>Suggested Materials, Equipment and Technology Resources</b>
I. Careers in Floral Design A. Managerial Supervisory 1. Flower Shop Owner 2. Flower Shop Manager B. Technical 1. Designer’s Assistant 2. Designer C. Service Workers 1. Sales Person 2. Office Worker 3. Delivery Person	Guest Speaker Lecture, PowerPoint Presentation Hand Outs PowerPoint Presentation	Guest Speaker about Careers in Floral Design Industry Worksheet PowerPoint Presentation using Career Cruising or Occupational Outlook Handbook discussing pay, benefits, and job descriptions of key floral design careers (Computer, LCD, or Smart Board) Textbook Periodicals Internet Reference Books LCD Projector with Computer

<p>II. Duties and training required for various jobs in the floral design industry</p>	<p>Research  Guest Speaker  Lecture with PowerPoint Presentation  Group investigations  Oral Presentation  Collages</p>	<p>Research Projects of students chosen career in floral design industry  Oral Presentations of career by student in floral design industry  Textbook  Periodicals to be used by students to create collages of chosen career  Internet and Reference used for group investigation about duties and training required for the floral design industry  Internet and Reference used for group oral presentation about duties and training for floral design industry  LCD Projector with Computer</p>
<p>III. Employability portfolio in the floral design industry</p> <ul style="list-style-type: none"> <li>A. Letter of Introduction</li> <li>B. Table of contents</li> <li>C. Letter of application</li> <li>D. Completed job application</li> <li>E. Résumé</li> <li>F. Letter of recommendation</li> <li>G. Pictures of samples</li> </ul>	<p>Guided Practice  Simulations  Portfolio  PowerPoint Presentation</p>	<p>Textbooks  Reference Books  Handouts students should place in portfolio and have papers necessary to gain employment in floral design industry  Videos  Digital Cameras to take pictures of floral design work accomplished by student throughout semester  CDs  Web sites  PowerPoint Presentation  LCD Projector with Computer</p>
<p>IV. Job interview in the floral design industry</p> <ul style="list-style-type: none"> <li>A. Prepare for job interview questions and answers.</li> <li>B. Prepare for the floral design industry job interview <ul style="list-style-type: none"> <li>1. Appropriate Dress</li> <li>2. Appropriate Personal behavior and hygiene</li> <li>3. Preparation and use of portfolio</li> <li>4. Knowledge about job</li> </ul> </li> </ul>	<p>Case Studies/ Discussion  Experiment  Simulations  PowerPoint Presentation</p>	<p>Textbook  Handouts  CDs  LCD Projector with Computers and Printers  Internet  PowerPoint Presentation</p>

applying for a floral design industry		
---------------------------------------	--	--

<b>Unit Assessment:</b>	Guest speaker worksheet, PowerPoint presentation, Performance Tasks, Portfolios (Collection of Best Work, Evidence of Skills), Extended Task Assignments, Inventories, Short Investigations, Case Studies, Research Projects
-------------------------	--

<b>Unit/Course CTSO Activity:</b>	Students will develop portfolio of floral design projects. FFA Members will participate in the Floriculture CDE.
-----------------------------------	---

<b>Unit/Course Culminating Product:</b>	Students design a variety of quality floral designs based on floral design principals and practices and students will develop a portfolio of designs to use in future job interviews in the floral design industry.
---	---

<b>Course/Program Credential(s):</b> <input type="checkbox"/> Credential <input type="checkbox"/> Certificate <input type="checkbox"/> Postsecondary Degree <input checked="" type="checkbox"/> University Degree <input type="checkbox"/> Other:
--

**Course Title: Floral Design and Interiorscaping**

<b>Unit: 2</b>	<b>Safety</b>
----------------	---------------

<b>Content Standard(s) and Depth of Knowledge Level(s):</b>	Students will: 1. Practice safe usage of tools and supplies in floral design and interiorscaping.
---	--

<b>Learning Objective(s) and Depth of Knowledge Level(s):</b>	Students will: 1. Explain the importance of safety in the floral design industry. 2. Explain personal protective equipment and give examples. 3. Identify safety precautions necessary when handling, applying, and storing chemicals used in the floral design industry.
---	--

<b>Essential Question(s):</b>	What criteria should floral design industry use to understand the importance of safe usage of tools and supplies used in the floral design industry?
-------------------------------	--

<b>Content Knowledge</b>	<b>Suggested Instructional Activities Rigor &amp; Relevance Framework (Quadrant)</b>	<b>Suggested Materials, Equipment and Technology Resources</b>
I. Importance of safety in the floral design industry A. Safety in floral design industry 1. Usage of Tools and Equipment B. Hazards in floral design industry 1. Usage of Chemicals (examples: Spray paint, leaf shine, and floral preservatives) 2. Slips and Falls 3. Electrical Safety	Lecture with PowerPoint Presentation and Classroom Discussion Guided Practice PowerPoint Presentation	Textbooks Checklists for safety in classroom and in shop setting Handouts Teaching Equipment demonstrates safe use of floral design tools and chemicals for students using PowerPoint or visual demonstration. LCD Projector with Computers and Printers Internet CDs



**Course Title: Floral Design and Interiorscaping**

<b>Unit: 3</b>	<b>Floral Design</b>
----------------	----------------------

<b>Content Standard(s) and Depth of Knowledge Level(s):</b>	<p>Students will:</p> <ol style="list-style-type: none"><li>3. Create floral arrangements using basic line designs.</li><li>4. Differentiate among flowers, foliage, and plants used in the floral design industry.<ul style="list-style-type: none"><li>• Demonstrating procedures for handling foliage and flowers</li></ul></li><li>5. Identify common floral arrangements used in the floral design industry.<p>Examples: corsages, boutonnieres, bud vases, centerpiece arrangements</p><ul style="list-style-type: none"><li>• Demonstrating various floral construction techniques Examples: wiring flowers, making bows</li><li>• Preparing potted plants for sale</li><li>• Calculating the cost of floral arrangements Examples: ratio mark-up, variable ratio mark-up, percentage mark-up</li></ul></li></ol>
---	--

<b>Learning Objective(s) and Depth of Knowledge Level(s):</b>	<p>Students will:</p> <ol style="list-style-type: none"><li>1. Evaluate the different types of line arrangements.</li><li>2. Design an arrangement using one of the line design principals in the floral design.</li><li>3. Demonstrate ability to identify flowers and foliage used in the floral design industry.</li><li>4. Explain the basic requirements of cut flowers.</li><li>5. Describe the steps of effective conditioning using floral preservatives to prevent deterioration and death in flowers.</li><li>6. Identify and describe supplies and tools needed in floral work.</li><li>7. Analyze how common floral designs are used in the floral industry.</li><li>8. Identify and describe supplies needed to create a corsage and boutonnieres.</li><li>9. Design a corsage and boutonnieres using a variety of design mechanics and techniques.</li><li>10. Determine different styles of corsages and boutonnieres and discuss proper placement and pinning of these designs.</li><li>11. Explain how to design bud vases and vase arrangements.</li><li>12. Identify types of centerpieces.</li><li>13. Decorate and prepare a potted plant for sale.</li><li>14. Learn how to take an order for a floral arrangement.</li><li>15. Evaluate the pricing and cost of floral arrangements</li></ol>
---	--

<b>Essential Question(s):</b>	What criteria should be obtained by the floral design student to create sellable, quality floral designs that consumers will want to purchase?
-------------------------------	--

<b>Content Knowledge</b>	<b>Suggested Instructional Activities Rigor &amp; Relevance Framework (Quadrant)</b>	<b>Suggested Materials, Equipment and Technology Resources</b>
<p>I. Basic floral line designs</p> <ul style="list-style-type: none"> <li>A. Inverted-T arrangement</li> <li>B. L-pattern arrangement</li> <li>C. Vertical arrangement</li> <li>D. Crescent arrangement</li> <li>E. Hogarth curve arrangement</li> <li>F. Contemporary freestyle arrangement</li> </ul>	<p>Worksheets Collages Demonstration Laboratory PowerPoint Presentation</p>	<p>Handouts of examples of each type floral line designs Textbooks Reference Books Teacher Designed Materials LCD Projector with Computer</p>
<p>II. Design an arrangement using a line design principal.</p> <ul style="list-style-type: none"> <li>A. Inverted-T arrangement</li> <li>B. L-pattern arrangement</li> <li>C. Vertical arrangement</li> <li>D. Crescent arrangement</li> <li>E. Hogarth curve arrangement</li> <li>F. Contemporary freestyle arrangement</li> </ul>	<p>Laboratory Demonstration Portfolio Lecture PowerPoint Presentation</p>	<p>Lab Supplies and Lab Equipment to create line design arrangements Student Equipment Supplies Rating Charts Internet or CD with PowerPoint Presentation about line design presentation about “how to” make design LCD Projector with Computer</p>
<p>III. Identify Flowers and Foliage</p> <ul style="list-style-type: none"> <li>A. Common Cut Flowers</li> <li>B. Common Foliage</li> </ul>	<p>Guided Practice Turn and Share Worksheets Portfolio PowerPoint Presentation</p>	<p>Internet and CDs CDs Textbooks Reference Books Portfolio created by students with pictures and identification of common cut flowers and foliage used in design LCD Projector with Computer</p>
<p>IV. Requirements of cut flowers</p> <ul style="list-style-type: none"> <li>A. High Quality Water</li> <li>B. Food and Sugar</li> <li>C. Healthy Environment</li> <li>D. Sanitation</li> </ul>	<p>Portfolio Experiments Inquiry PowerPoint Presentation</p>	<p>CDs Internet PowerPoint Presentation Reference Books LCD Projector with Computer</p>

<p>V. Conditioning of flower to prevent deterioration</p> <ul style="list-style-type: none"> <li>A. Genetic Life</li> <li>B. Wilting</li> <li>C. Timing of Harvest</li> <li>D. Ethylene Gas Exposure</li> <li>E. Disease or Damage</li> </ul>	<p>Laboratory PowerPoint Presentation Lecture</p>	<p>PowerPoint Presentation on conditioning flowers and foliage for use in floral design Lab Equipment and Lab Supplies used to condition flowers and foliage for use in floral design projects LCD Projector with Computer</p>
<p>VI. Supplies and Tools used in floral design</p> <ul style="list-style-type: none"> <li>A. Cutting Tools <ul style="list-style-type: none"> <li>1. Knives</li> <li>2. Florist shears</li> <li>3. Pruning shears</li> <li>4. Scissors</li> </ul> </li> <li>B. Supplies <ul style="list-style-type: none"> <li>1. Floral foam</li> <li>2. Needle point holder (frog)</li> <li>3. Chicken wire</li> <li>4. Greening pin</li> <li>5. Water tubes</li> <li>6. Hyacinth stakes</li> </ul> </li> </ul>	<p>Lecture and PowerPoint Presentation on Supplies Laboratory</p>	<p>CDs of tools and equipment used in floral design industry Lab Equipment Lab Supplies LCD Projector with Computer</p>
<p>VII. Common floral designs used in industry</p> <ul style="list-style-type: none"> <li>A. Corsages and Boutonnieres</li> <li>B. Bud Vases</li> <li>C. Centerpieces</li> </ul>	<p>Brainstorming/Discussion Lecture with PowerPoint Presentation Experiments Portfolio (Digital images of items student makes placed in portfolio used for job placement) PowerPoint Presentation Portfolio</p>	<p>PowerPoint Presentation with descriptions of common designs used in floral design industry Internet and Reference Books Teacher Designed Materials LCD Projector with Computers</p>
<p>VIII. Supplies needed to create corsages and boutonnieres</p> <ul style="list-style-type: none"> <li>A. Floral tape</li> <li>B. Florist wire</li> <li>C. Ribbon</li> <li>D. Color Changing Supplies</li> <li>E. Stem and Dip dyes</li> <li>F. Corsage and Boutonniere Pins</li> </ul>	<p>Guided Practice Laboratory identifying supplies needed to create corsages and boutonnieres PowerPoint Presentation</p>	<p>Lab Supplies Lab Equipment Student Equipment Supplies Rating Charts PowerPoint Presentation and CDs used on identification of supplies needed for floral design industry LCD Projector with Computers</p>

<p>IX. Corsage and Boutonnière wiring techniques</p> <p>A. Design Techniques</p> <ol style="list-style-type: none"> <li>1. Straight-wire method</li> <li>2. Hook method</li> <li>3. Piercing method</li> <li>4. Hairpin method</li> <li>5. Wrap method</li> <li>6. Stitch method</li> </ol> <p>X .Styles and Placements of Corsages and Boutonnières</p> <ol style="list-style-type: none"> <li>A. Pin On for women and men</li> <li>B. Wrist Corsage for women</li> <li>C. Single flower design</li> <li>D. Multi flower design</li> <li>E. Wearable flower designs (flower rings, flower arm bands)</li> </ol> <p>XI. Design a bud vase</p> <ol style="list-style-type: none"> <li>A. Single flower bud vase</li> <li>B. Multi-flower bud vase</li> </ol> <p>XII. Types of Centerpieces</p> <ol style="list-style-type: none"> <li>A. Vertical</li> <li>B. Triangular</li> <li>C. Circular</li> <li>D. Naturalistic</li> </ol>	<p>Oral Presentation</p> <p>Simulations</p> <p>Laboratory making corsage and boutonnière</p> <p>PowerPoint Presentation</p> <p>Portfolio</p> <p>PowerPoint Presentation with discussion and simulations of placement of wearable flowers.</p> <p>Laboratory</p> <p>Portfolio</p> <p>Laboratory making a bud vase</p> <p>PowerPoint Presentation on how to make single and multi-flower bud vase</p> <p>Demonstration</p> <p>Portfolio</p> <p>PowerPoint Presentation with discussion about types of centerpieces.</p> <p>Collages using pictures of types of centerpieces and their uses and styles described</p> <p>Laboratory making a centerpiece for a school event</p> <p>Portfolio</p>	<p>Lab Supplies</p> <p>Lab Equipment</p> <p>Student Equipment</p> <p>Supplies</p> <p>Rating Charts</p> <p>PowerPoint Presentation on description on different wiring techniques.</p> <p>LCD Projector with Computers</p> <p>PowerPoint Presentation and CDs used to discuss placement of wearable floral designs</p> <p>Student Design Projects</p> <p>Lab Equipment</p> <p>Lab Supplies</p> <p>LCD Projector with Computers</p> <p>Lab Equipment</p> <p>Lab Supplies</p> <p>Student Equipment</p> <p>LCD Projectors with Computers</p> <p>Internet</p> <p>CDs</p> <p>Web sites</p> <p>Handouts</p> <p>Teacher Designed Materials and PowerPoint Presentation</p> <p>Lab Equipment</p> <p>Lab Supplies</p> <p>LCD Projectors with Computers</p> <p>Textbooks</p>
--	--	--

<p>XIII. Prepare Potted Plant for sale.</p> <ul style="list-style-type: none"> <li>A. Decorate using florist foil, and preformed pot covers.</li> <li>B. Decorate using bows</li> </ul> <p>XIV. Taking a floral design order</p> <ul style="list-style-type: none"> <li>A. Initial Approach or Greeting</li> <li>B. Determining Needs</li> <li>C. Product Presentation</li> <li>D. Handling Questions and Objections</li> <li>E. Closing Sale</li> <li>F. Suggestion Selling</li> <li>G. Writing up the Order</li> <li>H. Reassuring and Thanking the Customer</li> </ul> <p>XV. Pricing and Cost of Floral Designs</p> <ul style="list-style-type: none"> <li>A. Calculate wholesale cost of goods for floral designs.</li> <li>B. Standard Ratio Markup Pricing</li> <li>C. Calculate retail cost plus labor.</li> </ul>	<p>Laboratory students practice preparing potted plant.          Demonstration of preparing potted plant          Guided Practice          PowerPoint Presentation on how to pot a plant for sale and appropriately decorate.          Portfolio</p> <p>Work-Based Learning          Work Sheets          Fishbowl (Have orders in fishbowl and have students take the order.)          Guided Practice          Homework          PowerPoint Presentation          Portfolio</p> <p>Group Investigation          Guest Speakers          PBL (Problem-Based Learning)          PowerPoint Presentation</p>	<p>PowerPoint Presentation          Support Materials          Checklists (Order form)          Handouts (Order form)          LCD Projectors with Computer</p> <p>Teaching Equipment          Lab Equipment and Lab Supplies used to take floral design orders          Student Equipment          PowerPoint Presentation          LCD Projectors with Computer</p> <p>Handouts of pricing of floral design supplies including wholesale and retail pricing          PowerPoint Presentation          LCD Projectors with Computer          Textbook          Reference Books          Support Materials          Teacher Designed Materials</p>
--	---	--

<b>Unit Assessment:</b>	Performance Tasks, Portfolios, Performances, Teacher Observations, Projects, Displays, Computer Presentations, Cooperative Group Projects
-------------------------	---

<b>Unit/Course CTSO Activity:</b>	Students will develop portfolio of projects. FFA Members will participate in the Floriculture CDE.
---------------------------------------	---

<b>Unit/Course Culminating Product:</b>	Students design a variety of quality floral designs based on floral design principals and practices and students will develop a portfolio of designs to use in future job interviews in the floral design industry.
---	---

--

<b>Course/Program Credential(s):</b> <input type="checkbox"/> Credential <input type="checkbox"/> Certificate <input type="checkbox"/> Postsecondary Degree <input checked="" type="checkbox"/> University Degree <input type="checkbox"/> Other:
--

**Course Title: Floral Design and Interiorscaping**

**Unit: 4 Interiorscaping**

**Content Standard(s) and Depth of Knowledge Level(s):**

- Students will:
6. Compare effects of light, temperature, air, and water on plant growth in interiorscaping.
  7. Differentiate among drainage characteristics of various growing media.
  8. Describe disease and insect control methods used in interiorscaping.
  9. Compare major plants fertilizers used in interiorscaping.
    - Identifying symptoms of common nutritional disorders in plants
  10. Explain principles of interior landscape design.
    - Examples: use of line, form, texture, and color
    - Demonstrating dynamics of arranging plant material in interior setting
    - Examples: balance, size, relationships of plants
  11. Design a maintenance schedule for interiorscape sites.
  12. Design interiorscapes for commercial clients.

**Learning Objective(s) and Depth of Knowledge Level(s):**

- Students will:
1. Describe the effect of light on plants.
  2. Describe a plant's temperature needs.
  3. Explain how the quality of air affects plants.
  4. Describe a plant's water needs.
  5. Describe basic construction and irrigation techniques used in interior plantscapes.
  6. Describe the characteristics of good growing medium.
  7. Compare and contrast the use of soil versus a soilless mix.
  8. List the major destructive plant insects in the landscape.
  9. Describe plant disease control techniques used in the landscape.
  10. Name weed control techniques used in landscape beds.
  11. Identify primary macronutrients and their deficiencies.
  12. Identify secondary macronutrients and their deficiencies.
  13. Identify micronutrients and their deficiencies.
  14. Describe environmental conditions that influence nutrient deficiencies.
  15. Explain interior plantscaping and its basic design principles.
  16. Identify the types of plants commonly used in interiorscapes.
  17. Explain some of the problems associated with the care of interior plants.
  18. Describe common tasks associated with plant maintenance.
  19. Describe safety concerns associated with the installation of large plant materials.
  20. Determine the price of landscape projects.

21. Identify how to calculate the cost of landscape projects.
22. Identify ways of marketing landscape businesses.
23. Identify how to determine a client's landscaping needs.
24. Explain the importance of maintaining good customer relations.

**Essential Question(s):**

What criteria should be followed to make quality interiorscape designs?

<b>Content Knowledge</b>	<b>Suggested Instructional Activities Rigor &amp; Relevance Framework (Quadrant)</b>	<b>Suggested Materials, Equipment and Technology Resources</b>
<p>I. Effect of light on plants</p> <p>A. Sun light is source of energy.</p> <ol style="list-style-type: none"> <li>1. Visible light spectrum</li> <li>2. Intensity of light</li> <li>3. Photoperiod</li> </ol>	<p>PowerPoint Presentation with Discussion Application Card/Wheel (Names and requirements of plants on card/wheel) Experiments with light effects on a plant used in interiorscaping. PowerPoint Presentation</p>	<p>Textbooks LCD Projector with Computer CDs of interiorscaping plants and requirements Lab Equipment (Lighting Equipment) Lab Supplies (Variety of Indoor Plants) Student Equipment</p>
<p>II. Temperature needs</p> <p>A. Range of temperatures</p> <ol style="list-style-type: none"> <li>1. Hardiness</li> <li>2. Wilted</li> </ol>	<p>PowerPoint Presentation with Discussion Application Card/Wheel (Names and requirements of plants on card/wheel) Experiments with light effects on a plant used in interiorscaping</p>	<p>Textbooks LCD Projector with Computer CDs of interiorscaping plants and requirements Lab Equipment (Lighting Equipment) Lab Supplies (Variety of Indoor Plants) Student Equipment</p>
<p>III. Quality of Air</p> <p>A. Carbon dioxide and oxygen</p>	<p>PowerPoint Presentation with Discussion Application Card/Wheel (Names and requirements of plants on card/wheel) Experiments with light effects on a plant used in interiorscaping</p>	<p>Textbooks LCD Projector with Computer CDs of interiorscaping plants and requirements Lab Equipment (Lighting Equipment) Lab Supplies (Variety of Indoor Plants) Student Equipment</p>
		<p>Textbooks LCD Projector with Computer CDs of interiorscaping plants and requirements</p>

<p>IV. Plants water needs</p> <p>A. Absorption of Water through roots and stems</p> <ol style="list-style-type: none"> <li>1. Proper watering amount</li> <li>2. Watering through root zone to promote even root growth</li> <li>3. Planting containers with drainage holes to allow oxygen in root zone</li> </ol> <p>V. Basic construction techniques used in interior plant scapes</p> <p>A. Technology and research advances have impacted how plantscapes are constructed and irrigated.</p> <ol style="list-style-type: none"> <li>1. History of plantscapes example: 1960's little thought given to growth requirements</li> <li>2. Proper containers used for cleaning and maintenance in plantscapes</li> <li>3. Soil composition and filler material for containers in plantscapes</li> </ol> <p>B. Basic irrigation techniques used to make watering more efficient</p> <ol style="list-style-type: none"> <li>1. Sub irrigation system</li> <li>2. Drip irrigation system</li> </ol> <p>VI. Growing Medium Characteristics</p> <p>A. Components of soilless mix.</p> <ol style="list-style-type: none"> <li>1. Peat moss</li> <li>2. Perlite</li> <li>3. Vermiculite</li> <li>4. Soil amendment</li> </ol> <p>B. Natural Field Soil not typically used in interior plant scapes</p> <ol style="list-style-type: none"> <li>1. Too heavy to permit rapid</li> </ol>	<p>PowerPoint Presentation with Discussion Application Card/Wheel (Names and requirements of plants on card/wheel) Experiments with light effects on a plant used in interiorscaping.</p> <p>PowerPoint Presentation with Discussion Experiments: Design a paper or live plant display for use in school. Field Trips/Virtual Field Trips Research on types and styles of interior plantscapes Portfolio</p> <p>Demonstration PowerPoint Presentation with Discussion Laboratory</p>	<p>Lab Equipment (Lighting Equipment) Lab Supplies (Variety of Indoor Plants) Student Equipment</p> <p>LCD Projector with Computer Lab Equipment Lab Supplies Field trip site (Mall, Business) Portfolio (Use digital camera on field trip or pictures from magazine to develop types and styles of interiorscaping.)</p> <p>LCD Projector and Computer Lab Equipment Lab Supplies</p>
--	--	--

<p>drainage</p> <ol style="list-style-type: none"> <li>2. Too heavy for the floor to support the container</li> <li>3. Inconsistent in composition making standardized maintenance of a variety of containers difficult</li> <li>4. Infestations with insects, weeds and pathogens</li> </ol>	<p>Demonstration PowerPoint Presentation with Discussion Laboratory</p>	<p>LCD Projector with Computer Lab Equipment Lab Supplies</p>
<p>VII. Soil versus a soilless mix</p> <ol style="list-style-type: none"> <li>A. Soil less mix advantages <ol style="list-style-type: none"> <li>1. Mix is uniform</li> <li>2. Mix is sterile</li> <li>3. Mix is able to be manipulated to improve drainage and fit exact needs of plant</li> <li>4. Mixes are easier to ship</li> </ol> </li> <li>B. Disadvantages of soilless mix <ol style="list-style-type: none"> <li>1. Fertilizers often need to be added</li> <li>2. Wind erosion of mix if soil is used outside</li> <li>3. Difficult to transplant out of soilless materials</li> </ol> </li> </ol>	<p>CDs PowerPoint Presentation with Discussion Laboratory</p>	<p>LCD Projector with Computer Lab Equipment Lab Supplies</p>
<p>VIII. Major destructive plant insects in the landscape</p> <ol style="list-style-type: none"> <li>A. Native and Nonnative species of insects</li> <li>B. Chewing insects</li> <li>C. Sucking insects</li> </ol>	<p>Demonstration PowerPoint Presentation with Discussion Laboratory</p>	<p>Textbook LCD Projector with Computer Lab Equipment Lab Supplies</p>
<p>IX. Disease control techniques used in the landscape</p> <ol style="list-style-type: none"> <li>A. Planting disease resistant varieties of trees and shrubs</li> <li>B. Pruning trees</li> <li>C. Applying fungicides</li> </ol>	<p>Laboratory PowerPoint Presentation with Discussion Simulations Observation Logs</p>	<p>Lab Equipment Lab Supplies LCD Projector with Computer Textbook Rating Charts Checklists Supplies</p>



<p>Boron (B), Copper (Cu), Chlorine (Cl), Iron (Fe), Manganese (Mn), Molybdenum (Mo), Zinc (Zn)</p> <p>XIV.Environmental conditions that influence nutrient deficiencies.</p> <ol style="list-style-type: none"> <li>A. Soil quality</li> <li>B. Soil Temperature</li> <li>C. Soil conditions</li> <li>D. Herbicides and mechanical controls</li> <li>E. Compaction of soil</li> <li>F. Spacing of plants</li> <li>G. Irrigation</li> </ol> <p>XV. Interior plantscaping</p> <ol style="list-style-type: none"> <li>A. Interior plantscaping use of plants in commercial and industrial settings</li> <li>B. Design principles</li> <li>C. Tropical plants</li> </ol> <p>XVI.Types of plants used in interior plantscapes.</p> <ol style="list-style-type: none"> <li>A. Items used in rating scales <ol style="list-style-type: none"> <li>1. Watering</li> <li>2. Sunshine</li> <li>3. Temperature</li> <li>4. Soil mixture</li> <li>5. Ease of growth</li> </ol> </li> <li>B. Indoor plant list <ol style="list-style-type: none"> <li>1. Flowering</li> <li>2. Non-Flowering</li> <li>3. Tropical Plants</li> <li>4. Temperate climate plants</li> <li>5. Holiday plants</li> </ol> </li> </ol>	<p>Text Book  Note-Taking  Research  Laboratory  Simulations  PowerPoint Presentation</p> <p>PowerPoint Presentation with Discussion  Research Simulations  Application Cards  Case Studies/ Scenarios  Experiments</p> <p>Guided Practice  Laboratory  Portfolio  PowerPoint Presentation with Handouts</p> <p>PowerPoint Presentation and Discussion  Guided Practice  Laboratory  Portfolio</p>	<p>Rating Charts  Checklists  Supplies</p> <p>LCD Projector with Computer  Lab Equipment  Lab Supplies  Rating Charts  Checklists  Supplies</p> <p>LCD Projector with Computer  Lab Equipment  Lab Supplies  Rating Charts  Checklists  Supplies</p> <p>LCD Projector with Computer  Lab Equipment  Lab Supplies  Rating Charts  Checklists  Supplies</p>
---	--	---

XVII. Problems associated with the care of interior plants

A. Plant inside experience stress caused by the following

1. Environment
2. Temperature
3. Light
4. Humidity
5. Design Flaws
6. Humans

PowerPoint Presentation and Discussion  
Guided Practice  
Laboratory  
Portfolio

LCD Projector with Computer  
Lab Equipment  
Lab Supplies  
Rating Charts  
Checklists  
Supplies

XVIII. Common tasks associated with plant maintenance

A. Responsibilities

1. Checking moisture levels
2. Dusting and cleaning leaves
3. Pruning
4. Removing and/or replacing damaged plants
5. Observing infestations or infections
6. Observing external abuse caused by humans
7. Completing time sheets, maintenance records, and evaluation forms
8. Safety
9. Contamination

PowerPoint Presentation and Discussion  
Worksheets  
Case Studies/ Scenarios  
Challenge Envelopes

LCD Projector with Computer  
Lab Equipment  
Lab Supplies  
Rating Charts  
Checklists  
Supplies

XIX. Safety concerns associated with installation of large plant materials

A. Job safety is priority. Safety involves the following:

1. Weight
2. Soil and insects
3. Pesticides
4. Balance relates to footing and the planting site

Worksheets  
Case Studies/ Scenarios  
Guided Practice  
Laboratory

LCD Projector with Computer  
Lab Equipment  
Lab Supplies  
Rating Charts  
Checklists  
Supplies

<p>XX. Price of landscape projects</p> <p>A. Designer estimates price. Parts of a bid include:</p> <ol style="list-style-type: none"> <li>1. Estimate for project</li> <li>2. Bid for project</li> <li>3. Specification of project</li> <li>4. Estimate sheets</li> </ol>	<p>Worksheets Case Studies/ Scenarios Guided Practice Laboratory</p>	<p>LCD Projector with Computer Lab Equipment Lab Supplies Rating Charts Checklists Supplies</p> <p>LCD Projector with Computer Lab Equipment Lab Supplies Rating Charts Checklists Supplies</p>
<p>XI. Calculate the cost of landscape</p> <p>A. Labor costs, material costs, overhead costs, contingency costs, and profit need to be taken into consideration</p>	<p>Worksheets Case Studies/ Scenarios Guided Practice Laboratory</p>	<p>LCD Projector with Computer Lab Equipment Lab Supplies Rating Charts Checklists Supplies</p>
<p>XII. Landscape companies marketing products and services</p> <p>A. Ways of Marketing.</p> <ol style="list-style-type: none"> <li>1. Phonebook</li> <li>2. Internet</li> <li>3. Direct mailing/Target advertising</li> <li>4. Newspaper advertisements</li> <li>5. Distribution flyers</li> </ol>	<p>Worksheets Case Studies/ Scenarios Guided Practice Laboratory</p>	<p>LCD Projector with Computer Lab Equipment Lab Supplies Rating Charts Checklists Supplies</p>
<p>XIII. Determine client's landscaping needs.</p> <p>A. Landscape project begins with a sale.</p> <ol style="list-style-type: none"> <li>1. Sale and exchange of goods or services.</li> </ol> <p>B. Designer determines what a customer wants or needs. Identifies customer's wants and needs</p> <p>C. Type of landscape design public area, outdoor living area, or service area</p>	<p>Worksheets Case Studies/ Scenarios Guided Practice Laboratory</p>	<p>LCD Projector with Computer Lab Equipment Lab Supplies Rating Charts Checklists Supplies</p> <p>LCD Projector with Computer</p>

<p>XIV. Five steps to make a landscape sale</p> <ul style="list-style-type: none"> <li>A. Preparation</li> <li>B. Opening</li> <li>C. Presentation</li> <li>D. Portfolio</li> <li>E. Closing</li> <li>F. Follow-up</li> </ul> <p>XXV. Maintaining good customer relations</p> <ul style="list-style-type: none"> <li>A. Complete work as scheduled</li> <li>B. Bills and invoices handled in a timely fashion</li> <li>C. Directions on how to care for plants and the landscape</li> <li>D. Installation work completed properly</li> <li>E. Check routinely with customer on progress of work completed.</li> </ul>	<p>Worksheets Case Studies/ Scenarios Guided Practice Laboratory</p>	<p>Lab Equipment Lab Supplies Rating Charts Checklists Supplies</p>
--	--	---

<p><b>Unit Assessment:</b></p>	<p>Test, Performance Tasks, Portfolios (collection of best work), Demonstrations, Extended Task Assignments, Experiments, Performances, Teacher Observations, Cooperative Group Projects, Posters, Group Projects, Online Activities, Rubrics, Rating Scales</p>
--------------------------------	--

<p><b>Unit/Course CTSO Activity:</b></p>	<p>Students will develop portfolio of projects. FFA Members will participate in the Floriculture CDE.</p>
--	---

<p><b>Unit/Course Culminating Product:</b></p>	<p>Students design a variety of quality floral designs based on floral design principals and practices and students will develop a portfolio of designs to use in future job interviews in the floral design industry.</p>
--	--

**Course/Program Credential(s):**  Credential  Certificate  Postsecondary Degree  University Degree  
 Other: