

**AGRI 1415**  
**Horticulture**

**Western Texas College**

- I. Basic Course Information
  - A. Course Description: Structure, growth, and development of horticultural plants. Examination of environmental effects, basic principles of reproduction, production methods ranging from outdoor to controlled climates, nutrition, and pest management.
  - B. Lab: The required laboratory activities will reinforce the lecture material.
- II. Student Learning Outcomes - Upon successful completion of this course, students will:
  - A. Identify the various horticultural industries and their roles in our society.
  - B. Describe the fundamentals of plant science.
  - C. Assess the interactions of soils, water, and fertility in plant science.
  - D. Contrast the methods of plant reproduction and propagation.
  - E. Explain the impacts of production methods and technologies on plant science.
  - F. Contrast methods of pest management in plant science.
  - G. Investigate methods of environmental manipulation (e.g. greenhouse controls, frost management methods, hot caps).
  - H. Apply scientific reasoning to investigate questions and utilize scientific and horticultural tools to collect and analyze data and demonstrate methods.
    - I. Use critical thinking and scientific problem-solving to make informed decisions.
    - J. Communicate effectively the results of scientific investigations.
- III. Course Requirements
  - A. Six Major Exams – 600 points
  - B. Research Paper – 100 points
  - C. Laboratory Attendance/Activity – 300 points
  - D. Comprehensive Final Exam – 200 points
- IV. Information On Books
  - A. Introductory Horticulture, Eighth Edition, Shry, Jr. and Reiley  
ISBN-13: 978-1-4254-8039-1  
ISBN-10: 1-4354-8039-2
- V. Other Policies, Procedures and important dates. Please refer to the WTC [Catalog](#) for the following:
  - A. Campus Calendar
  - B. Final exam schedule
  - C. How to drop a class
  - D. Withdrawal information
  - E. Student Conduct/Academic Integrity
  - F. Class Attendance
  - G. Students with disabilities

VI. Course Content and Tentative Schedule\*

Week 1	Introduction
Week 2	Unit 1 – Exploring the Horticulture Field Unit 2 – Plant Taxonomy: How Plants Are Named Unit 3 – Parts of the Plant and Their Functions
Week 3	Unit 4 – Environmental Requirements for Good Plant Growth Unit 5 – Growth Stimulants, Retardants and Rooting Hormones Exam #1 LAB: Flower Dissection
Week 4	Unit 6 – Seeds Unit 7 – Softwood and Semi Hardwood Cuttings and Micropropagation Unit 8 – Harwood Cuttings Unit 9 – Separation and Division LAB: Indirect Seeding
Week 5	Unit 10 – Grafting Unit 11 – Budding Unit 12 – Layering LAB: Propagation (Cuttings)
Week 6	Exam #2 Unit 16 – Integrated Pest Management and the Biological Control Unit 17 – The Safe Use of Pesticides Unit 18 – Insecticides LAB: Propagation (Division)
Week 7	Unit 19 – Fungicides, Rodenticides, Molluscicides, and Nematocides Unit 20 – Herbicides Exam #3 LAB: Pesticide Label Analysis/Usage
Week 8	Unit 21 – Dish Gardens Unit 22 – The Art of Bonsai Unit 23 – The Interior Landscape: Houseplants and Landscaping Unit 24 – Shrubs and Trees Unit 33 – Techniques of Pruning Unit 25 – Annual Bedding Plants Unit 26 – Perennials, Ornamental Grass, Vines, Bamboo and Prairie Gardens LAB: Grafting
Week 9	Unit 27 – Narrowleaf Evergreens Unit 28 – Broadleaf Evergreens

	Unit 29 – Deciduous Shrubs LAB: Landscape Design Lettering and Drawing Symbols
Week 10	Unit 30 – Deciduous Trees Unit 31 – Ground Covers Unit 32 – Bulbs Unit 34 – Principles of Landscaping, Maintenance, Xeriscaping, Water Gardens, Irrigation and Green Roofs Exam #4 LAB: Plan Personal Landscape Design
Week 11	Unit 35 – Establishing the Lawn Unit 36 – Maintaining the Lawn Unit 37 – Renovating the Lawn Unit 38 – Planning and Preparing the Garden Site Unit 39 – Planting the Vegetable Garden Unit 40 – Caring for the Vegetable Garden Unit 41 – Favorite Garden Vegetables and Herbs LAB: Personal Landscape Design
Week 12	Unit 42 – Strawberries Unit 43 – Blueberries Unit 44 – The Bramble Fruits Unit 45 – Grapes Exam #5 LAB: Personal Landscape Design
Week 13	Unit 46 – Wreaths and Door Swags Unit 47 – Creating Holiday Centerpieces Unit 48 – Enhancements and Accessories for Floral Designs Unit 49 – Floral Designs Unit 50 – Corsages and Boutonnieres Unit 51 – Beginning a Horticulture Business Unit 52 – Financial Operations of a Horticulture Business LAB: Field Trip
Week 14	Unit 53 – Human Relations: Personnel Management and Customer Sales Unit 54 – Business Communications Unit 55 – Horticulture in the Age of Technology Unit 56 – Leadership Development in Horticulture Exam #6 LAB: Seasonal Floral Project
Week 15	Research Papers Due, Review for Final Exam
Week 16	Final Exam

\*The above schedule, policies, procedures and assignments in this course are subject to change.

Last Modified: October 5, 2017