

Syllabus- Horticulture

Part 1- Plant Biology, Anatomy, Physiology, and Nomenclature

- A. How do plants grow- vegetative and reproductive
- B. What are the processes of photosynthesis, respiration, and transpiration?
- C. How are plants named? What are the parts of botanical name?

Part 2- Know Your Plants

- A. Key Plant Features for Identification
- B. CPP Plant List
- C. Plant Types- herbaceous and woody (sub categories)
- D. Plant Hardiness
- E. Plant Selection and Uses
- F. Plant Materials for landscaping

Part 3- Site Considerations

- A. Soils
 - a. Soil testing and understanding results
 - b. Texture and structure
 - c. Amendments
 - d. Soil chemistry- pH, CEC, and nutrition
- B. Slope
- C. Climate and microclimate
- D. Exposure- level of sunlight, wind, and water
- E. Plant assessment- protecting plants, assessing health

Part 4- Planting

- A. Call Before You Dig
- B. Site preparation
- C. Proper transporting and handling plants
- D. Proper hole preparation, depth, backfilling
- E. Handling of container-grown, ball and burlap and bare root plants
- F. Installing berms, tree wrap, stakes, and mulching
- G. Watering
- H. When to plant?
- I. Mulching and pruning at planting
- J. Planting annuals, perennials, and ornamental grasses

Part 5- Turf Management

- A. Turfgrass species- types, tolerances, and applications
- B. Installation methods- seed, sod, sprigs, plugs, hydroseeding
- C. Maintenance- mowing, fertilization, liming, aerification, verticutting

- D. Renovation
- E. Water needs

Part 6- Landscape Management

- A. Site Management
- B. Maintaining Woody Plants
 - a. Fertilization
 - b. Pruning
- C. Maintaining Herbaceous Plants
 - a. Fertilization
 - b. Deadheading, disbudding, staking, mulching, cutting back
- D. Water needs
- E. IPM
 - a. Pest Management
 - i. Diagnosis
 - ii. Damage
 - iii. Abiotic Issues
 - iv. Common Disease Organisms
 - 1. Ornamentals
 - 2. Turf
 - v. Common Insect/Mite Organisms
 - 1. Ornamentals
 - 2. Turf
 - b. Weed Management in Landscapes
 - i. Pre and postemergents
 - ii. Weed ID