

Course Objectives/Course Outline
Spokane Community College

Course Title: Advanced Arboriculture

Prefix and Course Number: AGHRT 235

Course Learning Outcomes:

By the end of this course, a student should be able to:

- Understand various arboricultural practices and techniques
- Understand the reasons for performing various arboricultural practices and techniques
- Understand how Arborists and Urban Foresters assess trees and manage risk
- Understand how Arborists and Urban Foresters select between the various methods for performing services based on variables including: worker safety, tree condition, available equipment, site access/ obstacles and productivity
- Gain familiarity with what a common arboricultural work site may entail
- Understand safety considerations for all types of tree work

Course Outline:

I. Pruning

- A. Pruning Objectives
- B. Branch Attachment
- C. Pruning Cuts
- D. Structural Pruning
- E. Pruning Mature Trees
- F. Pruning Methods
- G. Pruning Palms
- H. Specialty Pruning
- I. Wound Treatment
- J. Pruning Tools
- K. Timing
- L. Plant Growth Regulators

II. Tree Support and Lightning Protection

- A. Tree Support Systems
 - i. Static Cable Systems
 - ii. Dynamic Support Systems
 - iii. Bracing
 - iv. Guying
 - v. Propping
 - vi. Inspection and Maintenance
- B. Lightning Protection Systems
 - i. Lightning and Trees
 - ii. Candidates for Protection
 - iii. Lightning Protection Systems
 - iv. Inspection and Maintenance

III. Tree Assessment and Risk Management

- A. Risk Assessment Basics
- B. Tree Inspection
- C. Root Collar Excavation
- D. Tree Decay

- E. Risk Assessment and Management
- F. Mitigation Options
- G. Liability and Negligence
- IV. Trees and Construction
 - A. How Trees Are Damaged During Construction
 - B. Construction Practices
 - C. Planning and Preservation
 - D. Avoiding Tree Damage During Construction
 - E. Treatment of Trees Damaged by Construction
 - F. Role of the Arborist
- V. Urban Forestry
 - A. Benefits and Costs of Trees
 - B. Valuation and Appraisal
 - C. Planning
 - D. Tree Inventories
 - E. Regulatory and Legal Issues
 - F. Management
 - G. Information and Education
 - H. Urban Logging
- VI. Tree Worker Safety
 - A. Laws and Regulations
 - B. Personal Protective Equipment
 - C. Good Communication
 - D. General Safety
 - E. Electrical Safety
 - F. Chain Saw Safety
 - G. Tree Felling and Removal
 - H. Chipper Safety
 - I. Aerial Lifts
 - J. Stump Grinding
 - K. Palm Safety
 - L. First Aid Procedures
- VII. Climbing and Working in Trees
 - A. Inspection of Gear
 - B. Rope
 - C. Design and Limitations
 - D. Knots
 - E. Inspection of the Tree
 - F. Climbing Techniques and Procedures
 - G. Emergency Response and Aerial Rescue
 - H. Rigging