

## **Arborist Apprenticeship Course Summaries**

### **50-001-510 Arborist Skills 1**

Apprentices will examine aspects of being an arborist and the trade and occupations related to urban forestry. Course learning outcomes include an orientation to the trade, standards related to the tree care industry, safety and personal protective equipment, electrical hazard awareness; ground support for aerial operations, basic tree biology for first year apprentices, and the basic pruning cuts used by the trade.

### **50-001-511 Arborist Equipment Fundamentals**

Course learning outcomes include skill building with common equipment used by the trade. Chain saws, chippers, vehicle operations, plant health care, and aerial lift operations will be learned. Equipment maintenance is examined. Safety and safe work practices are reinforced.

### **50-001-512 Introduction to Aerial Tree Work**

Course competencies include pre-climb inspections, climbing equipment for safety, rope installations, ascending skills, re-positioning skills, maneuvering techniques, and descending skills. Apprentices will build skills selecting knots for various situations and applications.

### **50-001-513 Applied Aerial Work for Arborist Apprentices**

Apprentices will develop skills involved in aerial work performed by arborists. Course competencies include safety work practices, operating chain saws in an aerial situation; performing pruning cuts at heights, rigging loads during aerial work, climbing in spurs and decision-making for aerial pruning cuts and tree care.

### **50-001-514 Tree and Shrub Identification 1 for Arborist Apprentices**

Course examines tree and shrub identification using industry accepted standards. Course learning outcomes include anatomy and morphology, tree and shrub identification, and tools used by the trade to identify trees and shrubs. An introduction to insects and diseases will provide foundational knowledge for future courses in related instruction. The first tree & shrub identification course (1 of 3) will focus on deciduous and coniferous trees from the arborist apprenticeship must-know list.

### **50-001-515 Arborist Skills 2**

Arborist skills for second year apprentices will examine the ANSI A-300 tree care standards and apply those standards to various tree care situations. Apprentices will learn how to assess different trees for pruning needs; evaluate when and where to make cuts; demonstrate basic pruning cuts used by the trade; compare commercial, municipal, and utility applications for pruning; and relate pruning needs for specific trees. Course helps prepare apprentices for future coursework in the 2nd year of related instruction.

### **50-001-517 Rigging and Tree Removal Fundamentals for Arborist Apprentices**

Apprentices will explore concepts and develop skills related to tree removal and rigging. Course learning outcomes include safe climbing, safe tree removal, basic felling skills, rigging loads, using ropes and rigging systems, and performing ground work associated with tree removal.

### **50-001-518 Tree Biology; Identification 2 for Arborist Apprentices**

Apprentices will examine tree biology and relate concepts to the work performed by arborists in an urban forestry setting. Course competencies include understanding tree function and structure, categorizing the impact of diseases and pests, examining the CODIT model, and exploring tree risk concepts. Course will examine basic plant health needs, tree sites, nutrition and soil requirements. The second of 3 tree and shrub identification courses will focus on more coniferous and deciduous trees from the arborist apprenticeship must-know list, and explore associated tree and shrub disorders.

### **50-001-519 Arborist Skills**

Arborist skills for third year apprentices will examine light rigging systems and then examine hazards associated with working in trees. Methods for identifying branch failure risks, and strategies for assessing and mitigating tree risks will be explored. Course learning outcomes include examining tree support and protection systems, identifying signs and symptoms of decay, and applying the CODIT model to tree defects. Course prepares apprentices for additional coursework in the third year of related instruction.

### **50-001-520 Advanced Rigging and Tree Felling with Field Skill Building for Arborist Apprentices**

Course provides skill development for arborist apprentices related to tree felling and field skills associated with working outside. Competencies include specialized knots and rigging applications, making aerial pruning cuts in accordance with tree care standards, tree felling and field work associated with the occupation.

### **50-001-522 Plant Health Care Treatments & Shrub Identification 3 for Arborist Apprentices**

Apprentices will explore plant health care management by examining treatment options and prescriptions. Course learning outcomes will examine PHC options, examine integrated pest management; and build skills handling chemicals, operating equipment, and applying treatments. Course will compare specialized equipment used by arborists for plant health care. The course will also explore amending soils and responding to tree damage from construction. Integrated vegetation management standards will be reviewed. Additional tree and shrub disorders will be identified and diagnosed. The third of 3 tree and shrub identification courses will focus on identifying both evergreen and deciduous woody shrubs in the field.

### **50-001-523 Crew Leader Training; Capstone for Arborist Apprentices**

Arborist apprentices will prepare for post-apprenticeship work duties and examine the roles performed by crew leaders. Course learning outcomes include training others, setting up job sites, managing resources, report work performed, and apply communication and interpersonal skills to various situations. Apprentices will build skills interpreting written work orders/plans and applying leadership skills to solve problems.