Urban Forestry

Urban Forestry is a one-credit course designed to enable students to acquire forestry knowledge and skills for an urban setting. Topics include career opportunities, safety, climbing and rigging, urban tree management, and tree disorders.

Content standards for this course are not intended to serve as the entire curriculum. Teachers are encouraged to expand the curriculum beyond these minimum required content standards to accommodate specific community interests and utilize local resources. This course encourages critical thinking, use of the scientific method, integration of technology, development of student leadership skills, and application of knowledge and skills related to practical questions and problems. Safety concepts are integrated into instruction to the maximum extent possible.

Career and technical student organizations are integral, cocurricular components of each career and technical education course. These organizations serve as a means to enhance classroom instruction while helping students develop leadership abilities, expand workplace-readiness skills, and broaden opportunities for personal and professional growth.

Career Opportunities

Students will:

1. Describe career opportunities in urban forest management.

Safety

2. Identify arborist safety standards, including International Society of Arboriculture (ISA) regulations.

Climbing and Rigging

3. Describe climbing equipment used by arborists, including saddles, lanyards, snaps, and ascenders.
   - Demonstrating various types of knots and hitches used by arborists
   - Comparing types of ropes used by arborists

4. Compare rigging techniques used by arborists.
   Examples: rope-positioning, false-crotch, speed-lining
   - Explaining tensile strength, working loads, and shock loads of ropes used by arborists
   - Identifying rigging equipment used by arborists
     Examples: carabiners, slings, block-and-tackle, figure-eight descenders, lowering devices

5. Identify tree-climbing techniques.
Urban Tree Management

6. Compare management strategies for urban forests.

7. Compare tree removal methods.

8. Explain reasons for cabling and bracing a tree.
   • Describing the equipment needed for cabling and bracing a tree
   • Demonstrating tree-cabling and tree-bracing techniques

9. Explain reasons for tree pruning.
   • Demonstrating tree-pruning cuts
   • Identifying the appropriate time for pruning trees
   • Identifying types of tree-pruning tools

10. Design a landscape plan for a wooded environment.
     • Describing skills needed in wooded landscaping

Tree Disorders

11. Describe major tree disorders.
    • Examining tree growth and structure
    • Identifying tree defense systems

12. Identify insects, diseases, parasites, and weeds that afflict trees.
    • Describing pest management in urban forestry, including mechanical treatment,
      biological treatment, chemical treatment, and genetically engineered resistance