Prepared: John Clement Approved: Sherri Smith

Course Code: Title	ARB706: UTILITY ARBORIST SCIENCES II
Program Number: Name	6561: UTILITY ARBORIST II
Department:	UTILITY ARBORIST - APPR.
Semester/Term:	18W
Course Description:	Demonstrate a knowledge of how to identify various woody plants, growth factors of woody plants, compartmentalization of woody plants, diseases and disorders of trees that could be harmful to the integrity of the electrical system, evaluate the condition of the anchor points in trees used for fall protection, evaluation of work operations within environmentally sensitive locations.
Total Credits:	2
Hours/Week:	21
Total Hours:	21
Essential Employability Skills (EES):	#1. Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience. #2. Respond to written, spoken, or visual messages in a manner that ensures effective communication. #4. Apply a systematic approach to solve problems. #5. Use a variety of thinking skills to anticipate and solve problems. #8. Show respect for the diverse opinions, values, belief systems, and contributions of others. #9. Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals. #10. Manage the use of time and other resources to complete projects. #11. Take responsibility for ones own actions, decisions, and consequences.
Course Evaluation:	Passing Grade: 50%,
Evaluation Process and Grading System:	

Evaluation Type	Evaluation Weight
Attendance and Participation	25%
Final Test	25%
Quizzes and Assignments	50%

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Course Outcomes and Learning Objectives:

Course Outcome 1.

Identify the impact and mode of action of systemic and contact herbicides on wood and herbaceous plants.

Learning Objectives 1.

- Determination of best control methods: environmental factors, efficacy, application restrictions, pesticide labels, specificity
- Describe application techniques including stem foliar, broadcast foliar, basal bark and cut stump
- Describe off target impacts e.g. agriculture crops

Course Outcome 2.

Describe the impact of work operations on environmentally sensitive areas.

Learning Objectives 2.

- Discuss the effects of herbicide application, soil erosion, soil compaction, species at risk, slope/aspect, water and ANSI sites
- Prepare and present a one-page report that explains these effects

Course Outcome 3.

Identify appropriate pruning methods according to tree health and cycle clearance.

Learning Objectives 3.

- Review the characteristics related to pruning techniques used including species cycle clearance, growth characteristics, shape trees for aesthetics, disease prevention, branch collar, branch bark ridge, branch protective zone, shoot invigoration, sucker growth, coppice growth, epicormic branching, water sprout production and lateral prunes

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- Explain the protection of branch tissue through proper pruning
- Describe the effects of poor pruning techniques on CODIT

Course Outcome 4.

Identify the physical condition and soundness of interim, and final anchor points based on tree size, tree condition and species.

Learning Objectives 4.

- Describe attributes of a solid anchor point
- Explain the impacts of various loads on tree structure when selecting an interim and final anchor point

Course Outcome 5.

Identify diseases, disorders, wounds, and defects of woody plants.

Learning Objectives 5.

- Identify pathogens that cause disease including fungus, bacteria, viruses, leaf diseases, stem diseases, trunk diseases, root diseases and vascular diseases
- Differentiate between biotic and abiotic pathogens
- Describe the disease cycles of cankers, basidiocarps and galls

Date:	Thursday, August 31, 2017
	Please refer to the course outline addendum on the Learning Management System for further information.