

MODULE AGR3060: LANDSCAPE/TURF MANAGEMENT 2 (INSTALLATION & REPAIR)

Level: Advanced

Theme: Technology and Applications

Prerequisite: AGR2060 Landscape/Turf Management 1 (Maintenance Practices)

Module Description: Students demonstrate the techniques used to provide landscape and turf management services, focusing attention on plant identification, effective maintenance practices, diagnosis and correction of problems, installation of specialty items, cost analysis and seasonal estimates. Potential areas of specialization include home landscapes, golf courses, recreational fields and parks, institutional/industrial grounds and roadside landscapes.

Module Parameters: Access to residential, recreational, institutional/industrial and/or roadside landscapes.

Facilities and equipment should permit students to perform practical tasks in landscape management, including the analysis of turfgrass problems and the planning/installation of specialty items.

Instructor training in first aid and in the use of pesticides is recommended; e.g., Standard First Aid, Pesticide Applicator/Dispenser Certificate.

Off-campus learning can support the development of practical skills in landscape/turf management; consultation with a work site supervisor ensures that relevant safety considerations are addressed and that student learning meets or exceeds the learner expectations in this module.

See the *Off-campus Education Guide for Administrators, Counsellors and Teachers* (Alberta Education, 1995) for further information regarding off-campus learning.

Note: This module can be combined with other modules from the Agriculture strand and/or from the Career Transitions strand to provide opportunities for students to develop technical competencies within the Landscape Gardener Apprenticeship Program (Alberta Advanced Education and Career Development). See Section H (Linkages/Transitions) of this guide for further information.

Supporting Module: CTR2210 Workplace Safety (Practices) [Career Transitions Strand]

Because of the practical nature of this module, students need a general knowledge of accepted practices and potential hazards when performing tasks related to landscape/turf management. See Planning for Instruction in Section C for further information on student safety.

MODULE AGR3060: LANDSCAPE/TURF MANAGEMENT 2 (INSTALLATION & REPAIR)
(continued)

Curriculum and Assessment Standards

| Module Learner Expectations | Assessment Criteria and Conditions | Suggested Emphasis |
|--|---|--------------------|
| <p><i>The student will:</i></p> <ul style="list-style-type: none"> • identify plants suitable for use in Alberta landscapes | <p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> • given access to on-site (or photographed) tree, shrub, ground cover, flower and turfgrass species/varieties used in Alberta landscapes, identifying selected specimens according to: <ul style="list-style-type: none"> – common and botanical names – general characteristics/growth habits – functional use in Alberta landscapes. <p><i>Assessment Tool</i> <i>Identification Guide: Landscape Plants, AGRIDE–LDS</i> <i>Information Sheet: Landscape Plants, AGRINF–LDS</i></p> <p><i>Standard</i> <i>Identify 10 landscape plants (including tree, shrub, ground cover, flower and turfgrass specimens) in addition to those identified in AGR1070 and AGR2060</i></p> <ul style="list-style-type: none"> • given access to on-site (or photographed) weed species found in Alberta landscapes and turfgrasses, identifying selected specimens according to: <ul style="list-style-type: none"> – common name – growth habit – management technique. <p><i>Assessment Tool</i> <i>Identification Guide: Landscape/Turfgrass Weeds, AGRIDE–WED</i> <i>Information Sheet: Landscape/Turfgrass Weeds, AGRINF–WED</i></p> <p><i>Standard</i> <i>Identify 5 common weeds (found in Alberta landscapes and/or turfgrasses) in addition to those identified in AGR1070 and AGR2060</i></p> | <p>20</p> |

MODULE AGR3060: LANDSCAPE/TURF MANAGEMENT 2 (INSTALLATION & REPAIR)
(continued)

| Module Learner Expectations | Assessment Criteria and Conditions | Suggested Emphasis |
|---|--|--------------------|
| <p><i>The student will:</i></p> <ul style="list-style-type: none"> demonstrate practical skills in installing, maintaining and managing landscape plants and turfgrass | <p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> performing landscape/turfgrass installation and maintenance services within <u>each</u> of the following areas: <ul style="list-style-type: none"> planting and transplanting turfgrass establishment analysis of turfgrass problems and corrective measures pruning of fruit trees, hedges and specialty plants fertilizer calculation and application to landscaped/turfed areas winterizing of trees, shrubs, perennials and turfgrasses. <p>Installation and maintenance services will involve the application of appropriate safety guidelines for using hand and power equipment.</p> <p><i>Assessment Tool</i> <i>Task Checklist: Landscape/Turf Management 2, AGR3060-1</i> <i>Lab Assessment: Landscape and Turf Care, AGRLAB-LDS</i></p> <p><i>Standard</i> <i>Achieve a minimum performance rating of:</i> – 2 in installation and maintenance services – 3 in the use of hand and power equipment</p> <ul style="list-style-type: none"> maintaining an anecdotal record of all landscape/turfgrass services performed <p><i>Assessment Tool</i> <i>Log/Record of Landscape/Turfgrass Services, AGRLOG-LDS</i></p> <p><i>Standard</i> <i>Completing all sections of the log/record for each service performed</i></p> | <p>50</p> |

MODULE AGR3060: LANDSCAPE/TURF MANAGEMENT 2 (INSTALLATION & REPAIR)
(continued)

| Module Learner Expectations | Assessment Criteria and Conditions | Suggested Emphasis |
|---|---|--|
| <p><i>The student will:</i></p> <ul style="list-style-type: none"> • develop and present a plan for the installation of a specialty item and/or system within an Alberta landscape • estimate the cost of providing seasonal landscape and/or turfgrass services • demonstrate basic competencies. | <p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> • preparing a proposal for the installation of <u>one</u> specialty item and/or system within an Alberta landscape. The proposal will provide: <ul style="list-style-type: none"> – an explanation of need – a description of component parts – a plan for installation – an estimated total cost. <p><i>Assessment Tool</i> <i>Proposal: Installation of Specialty Items/Systems, AGR3060–2</i></p> <p><i>Standard</i> <i>Accurately complete the proposal to a standard of 3 on the rating scale</i></p> <ul style="list-style-type: none"> • preparing a simple cost analysis and estimate for providing a “seasonal” landscape/ turfgrass service. <p><i>Assessment Tool</i> <i>Landscaping Principles and Practices (Unit 25: Pricing Landscape Maintenance)</i></p> <p><i>Standard</i> <i>Accurately complete a cost analysis and estimate for providing one seasonal service</i></p> <ul style="list-style-type: none"> • observations of individual effort and interpersonal interaction during the learning process. <p><i>Assessment Tool</i> <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p> | <p>20</p> <p>10</p> <p>Integrated throughout</p> |

MODULE AGR3060: LANDSCAPE/TURF MANAGEMENT 2 (INSTALLATION & REPAIR)
(continued)

| Concept | Specific Learner Expectations | Notes |
|----------------------|--|--|
| Plant Identification | <p><i>The student should:</i></p> <ul style="list-style-type: none"> • describe methods of classifying landscape plants; e.g.: <ul style="list-style-type: none"> – common and botanical names – general characteristics/growth habits – functional use • describe methods of identifying landscape plants; e.g.: <ul style="list-style-type: none"> – using common names – using botanical nomenclature • explain the use of taxonomy keys in plant identification • identify and select appropriate trees, shrubs and ground covers for given applications in Alberta landscapes; e.g.: <ul style="list-style-type: none"> – herbaceous and woody – evergreen and deciduous • identify and select appropriate flowers for given applications in Alberta landscapes; e.g.: <ul style="list-style-type: none"> – annual, biennial and perennial – bulbs, tubers and rhizomes • identify and select appropriate turfgrasses for given applications in Alberta landscapes; e.g.: <ul style="list-style-type: none"> – rhizome producing, stolon producing and bunch type – fine, medium and course leaf texture. | <p>Identify 10 or more landscape plants on-site (in addition to those identified in AGR1070 and AGR2060).</p> <p>Collect/mount a weed display.</p> <p>Use an identification key to identify previously unknown plants.</p> <p>Choose and plant bare root, ball and burlap, and container-grown stock.</p> <p>Identify specialty plants, including bulbs, corms, tubers and fleshy roots.</p> <p>Relate anatomy of turfgrass to appropriate management practices.</p> <p>Distinguish between single species turf plantings and grasses that are mixtures or blends.</p> |

MODULE AGR3060: LANDSCAPE/TURF MANAGEMENT 2 (INSTALLATION & REPAIR)
(continued)

| Concept | Specific Learner Expectations | Notes |
|--|---|--|
| <p>Installation/ Maintenance Tasks</p> | <p><i>The student should:</i></p> <ul style="list-style-type: none"> • demonstrate proper planting and/or transplanting techniques for landscape plants; e.g.: <ul style="list-style-type: none"> – handling of plant materials – preparing the growing media and seed bed – installing plants and turf – staking and guying the plants • demonstrate proper techniques for preparing turfgrasses in the spring season; e.g.: <ul style="list-style-type: none"> – clean-up – dethatching – first cutting – patching the lawn – aeration and top dressing – fertilizing • describe and correct turfgrass problems; e.g.: <ul style="list-style-type: none"> – fairy ring – scalping – ridging – compacting – insect, animal and disease problems • demonstrate appropriate techniques for pruning fruit trees • demonstrate or describe appropriate practices for shaping trees and shrubs; e.g.: <ul style="list-style-type: none"> – hedge shearing – espalier – topiary • identify types of winter damage to landscape plants and ways to recover from winter injury; e.g.: <ul style="list-style-type: none"> – windburn and sunscald – temperature extremes – ground heaving – damage owing to ice, snow and salt – snowplow and vehicle damage. | <p>Perform general landscape and turf maintenance services.</p> <p>Keep a daily log that details maintenance services performed.</p> <p>Demonstrate proper use of core aerator and power rake.</p> <p>Calculate basic fertilizer requirements for turfed areas.</p> <p>Potential linkages exist with various pesticide applicator/dispenser certificate courses (see Section H: Linkages/Transitions).</p> <p>Demonstrate corrective pruning on trees and shrubs:</p> <ul style="list-style-type: none"> • thinning, heading back, jump cuts • hedge shearing • pruning conifers. <p>Explain winterizing techniques for trees, shrubs and turf.</p> |

MODULE AGR3060: LANDSCAPE/TURF MANAGEMENT 2 (INSTALLATION & REPAIR)
(continued)

| Concept | Specific Learner Expectations | Notes |
|-----------------------------|--|---|
| Specialty Items and Systems | <p><i>The student should:</i></p> <ul style="list-style-type: none"> • identify different types of specialty items and/or systems found in Alberta landscapes; e.g.: <ul style="list-style-type: none"> – underground sprinkling – hedging and screening – hillside planting – ponds – paving systems – retaining walls – landscape lighting • explain local regulations that may influence the selection, design and/or installation of a specialty item or system; e.g.: <ul style="list-style-type: none"> – land planning and zoning – use of equipment or chemical – environmental constraints • plan and cost one specialty item and/or system for an Alberta landscape; e.g.: <ul style="list-style-type: none"> – explanation of need – description of component parts – plan for installation – estimated total cost. | |
| Seasonal Estimates | <ul style="list-style-type: none"> • identify factors that determine the seasonal cost of providing a landscape/turfgrass service; e.g.: <ul style="list-style-type: none"> – material costs – labour costs – equipment usage costs – overhead costs • prepare seasonal cost analyses for basic landscape/turfgrass services. | <p>Consider daily work ethic in assessing landscape services performed:</p> <ul style="list-style-type: none"> • attendance • punctuality • use of time • group skills/attitudes • respect for property • clean-up. |

