DATE OF LAST REVIEW: 11/2014
CIP CODE: 46.0401
SEMESTER: Departmental Syllabus
COURSE TITLE: Landscaping
COURSE NUMBER: BPMT0124
CREDIT HOURS: 4
INSTRUCTOR: Departmental Syllabus
OFFICE LOCATION: Departmental Syllabus
OFFICE HOURS: Departmental Syllabus
TELEPHONE: Departmental Syllabus
EMAIL: Departmental Syllabus

KCKCC-issued email accounts are the official means for electronically communicating with our students.

PREREQUISITES: OSHA 10, Math Level 3 Recommended

REQUIRED TEXT AND MATERIALS: Please check with the KCKCC bookstore, http://www.kckccbookstore.com/, for the required tests for your particular class.

COURSE DESCRIPTION:
This is the basic course in landscaping. The course topics include: Environmental sustainability, landscaping tools, equipment and supplies. It will cover landscaping planning, methods, and procedures. It will also cover tool sharpening, equipment maintenance, planting and spacing. The student will study tree shade effects, heights, water conservation, soil management, lawns, mowing, sprinkler systems, fertilizing, weed control, sod placement, reseeding and ground cover. Golf course maintenance is a part of the curriculum. Twenty hours of mowing on riding equipment is required.
**METHOD OF INSTRUCTION:**
A variety of instructional methods may be used depending on content area. They may include but are not limited to lecture, multimedia, cooperative/collaborative learning, demonstrations, labs, on-the-job, internships, and other learning experiences outside the classroom. Methodology will be selected to best meet student needs.

**COURSE OUTLINE:**
I. Introduction to Landscaping

II. Lawn Tools
   A. Sharpening Lawn Tools
      1. Combination Oilstone
      2. Oil
      3. Electric Grinder
      4. Files
   B. Sharpening Lawn Mower Blades
      1. Blade Removal
      2. Grinding
      3. Blade Balance
   C. Sharpening Trimming Shears
      1. File Method
      2. Blade Angle
   D. Mower Engine Maintenance
      1. Regular Maintenance
      2. Frequent Breakdown
      3. Oil Maintenance
      4. Two Stroke Engine
      5. Four Stroke Engine
   E. Rust Removal
      1. Solutions
      2. Hand Tools
      3. Power Tools
   F. Storing Tools
      1. For Safety
      2. Cutting Edges
      3. To reduce tool replacements

III. Landscape Planning
    A. Structure Location
    B. Present Plantings
    C. Landscape Architects
D. Scale Drawing
E. Future Planting – When Mature
F. Tree Size
   1. Tall
   2. Short
   3. Narrow
   4. Wide
G. Tree Shading Effect
   1. Height Summary
   2. Shade Points
   3. Landscape Grid
   4. Graphing
H. Landscaping With Small Plants
   1. Dwarf Type Trees
   2. Small Ornamentals
   3. Evergreens
   4. Spreading Junipers
   5. Yews
   6. Arbor Vitae

IV. Soil Management
A. Troubleshooting Soil Problems
B. Evaluating Soil Moisture
C. Leaching The Soil
D. Cultivating The Soil
E. Evaluating Soil Texture
F. Mulches and Soil Amendments
G. Maintaining Compost
H. Test Soil pH
   1. Adjusting Soil pH
   2. Testing for Nitrogen
   3. Testing for Phosphorus
   4. Testing for Potassium
I. Soil Nutrients
J. Applying Fertilizer to the Soil
K. Evaluating Soil Drainage

V. Lawns
A. Types
   1. Kentucky Bluegrass
   2. Perennial Ryegrass
   3. Tall Fescue
4. Fine Fescue
5. Bahia Grass
6. Bermuda Grass
7. St. Augustine Grass
8. Centipede Grass
9. Zoysia Grass

B. Troubleshooting
1. Lawn Uneven and Thinning
2. Grass Intrusion
3. Ground Cover Invading Lawn
4. Scalping
5. Turning Brown
6. Lawn Pale
7. Weeds
8. Lawn and Trees

C. Mowing and Trimming
1. Adjusting Mowing Height
2. Trimming Edges

D. Sprinkler Systems
1. Amount and Time
2. Checking Water Penetration
3. Systems, irrigation system install

E. Fertilizing
1. Calculating Fertilizer Amounts
2. Applying Granular Fertilizer
3. Applying Liquid Fertilizer

F. Weeds
1. Crabgrass
2. Barnyard Grass
3. Bermuda Grass
4. Quack Grass
5. Nutsedge
6. Johnsongrass
7. Removing By Hand
8. Spot Application of Herbicides
9. Applying Herbicide with a Paintbrush
10. Spraying Herbicide Over Large Area

G. Rolling Back and Removing Sod
1. Cutting the Sod Edges
2. Rolling Back the Sod
H. Reseeding
   1. Small Patch
   2. Bare Patch with Plugs
   3. Bare Patch with Sprigs
   4. Replanting Large Areas
   5. Replanting with Sod
   6. Replanting with seed

I. Aerating a Lawn
J. Dethatching a Lawn
K. Over-seeding

VI. Ground Cover
   A. Maintaining Healthy Ground Cover
   B. Controlling Ground Cover
   C. Pruning Ground Cover
   D. Propagating Ground Cover
      1. By Layering
      2. By Dividing
   E. Planting Ground Cover
   F. Troubleshooting Problems

VII. Environmental Sustainability
    A. Environmentally safe waste disposal.
    B. Life cycle analysis.
    C. Recycled material.
    D. Low VOC emissions.
    E. New “green” materials.
    F. New “green” methods and practices.
    G. “Low impact” designs.

VIII. Mowing Internship
    A. 20 hour requirement

EXPECTED LEARNER OUTCOMES:
A. The student will be able to describe and identify lawn tools.
B. The student will be able to describe and identify mower engine maintenance.
C. The student will be able to describe and identify landscape planning.
D. The student will be able to describe and identify soil management.
E. The student will be able to describe and identify lawns.
F. The student will be able to repair and install sprinkler/irrigation Systems.
G. The student will be able to describe and identify fertilizing.
H. The student will be able to describe and identify weeds.
I. The student will be able to describe and identify re-seeding.
J. The student will be able to describe and identify ground cover.
K. The student will be able to describe and identify environmental sustainability.
L. The student will be able to describe and identify mowing internship.

**COURSE COMPETENCIES:**

*The student will be able to describe and identify Lawn Tool.*
1. The student will be able to describe and demonstrate proper sharpening with an oilstone.
2. The student will be able to describe and perform proper sharpening with a grinder.
3. The student will be able to describe and demonstrate the correct uses of whetstone oil.
4. The student will be able to describe and demonstrate the proper sharpening by filing.
5. The student will be able to describe and perform a correctly sharpened angle.
6. The student will be able to describe and demonstrate proper rust removal technique.

*The student will be able to describe and identify Mower Engine Maintenance.*
7. The student will be able to describe and demonstrate proper lubrication servicing.
8. The student will be able to describe and perform maintenance on a two stroke engine properly.
9. The student will be able to identify and demonstrate how to mount a mower blade correctly.
10. The student will be able to describe and demonstrate how to change a spark plug correctly.
11. The student will be able to describe and perform maintenance on a four stroke engine correctly.
12. The student will be able to describe and demonstrate how to read a mower maintenance schedule.

*The student will be able to describe and identify Landscape Planning.*
13. The student will be able to describe and demonstrate how to design plantings.
14. The student will be able to describe and perform root balling correctly.
15. The student will be able to describe and demonstrate correct pruning technique.
16. The student will be able to describe and demonstrate cut back methods correctly.
17. The student will be able to describe and perform winterizing methods successfully.
18. The student will be able to describe and demonstrate the term structure location.

*The student will be able to describe and identify Soil Management.*
19. The student will be able to describe and demonstrate how to accurately troubleshoot soil problems.
20. The student will be able to describe and perform a soil moisture test.
21. The student will be able to describe and demonstrate a knowledge of soil types.
22. The student will be able to describe and demonstrate test soil PH.
23. The student will be able to describe and perform fertilizing properly.
24. The student will be able to describe and demonstrate a knowledge of mulches.

*The student will be able to describe and identify lawns.*
25. The student will be able to describe, identify and demonstrate how to prevent grass intrusion.
26. The student will be able to describe, identify and perform a trimmer adjustment.
27. The student will be able to describe, identify and demonstrate types of grasses.
28. The student will be able to describe, identify and demonstrate the proper selection of grasses.
29. The student will be able to describe, identify and perform an aereating properly.
30. The student will be able to describe, identify and demonstrate a knowledge of lawn diseases.

*The student will be able to repair and install sprinkler/irrigation systems.*

31. The student will be able to identify and demonstrate the correct timing of watering systems.
32. The student will be able to identify and perform a moisture test.
33. The student will be able to identify and demonstrate how to set timers correctly.
34. The student will be able to describe and demonstrate how to set up a sprinkler system successfully.
35. The student will be able to describe and perform a system repair successfully.
36. The student will be able to describe and demonstrate a knowledge of watering problems correctly.

*The student will be able to describe and identify fertilizing.*

37. The student will be able to describe and demonstrate how to select fertilizer.
38. The student will be able to describe and perform how to apply fertilizer.
39. The student will be able to describe and demonstrate when to apply fertilizer.
40. The student will be able to describe and demonstrate how to solve fertilizer caused problems.
41. The student will be able to describe and perform an application of granular fertilizer.
42. The student will be able to describe and identify how to mix liquid fertilizer properly.

*The student will be able to describe and identify weeds.*

43. The student will be able to describe and demonstrate a knowledge of crabgrass.
44. The student will be able to describe and perform a spot application of weed killer.
45. The student will be able to describe and demonstrate types of weeds.
46. The student will be able to describe demonstrate how to safely handle weed killers.
47. The student will be able to describe and perform how to apply weed killer with a paint brush.
48. The student will be able to describe and demonstrate how to spray a large area.

*The student will be able to describe and identify re-seeding.*

49. The student will be able to describe and demonstrate how to mix a batch of seed.
50. The student will be able to describe and perform plugging a bare patch.
51. The student will be able to describe and demonstrate patching with sprigs.
52. The student will be able to describe and demonstrate how to replant a large area.
53. The student will be able to describe and perform replant with sod.
54. The student will be able to describe and demonstrate how to fertilize new seedlings.

*The student will be able to describe and identify ground cover.*
The student will be able to describe and demonstrate how to maintain healthy ground cover.

The student will be able to describe and perform thinning on ground cover.

The student will be able to describe and demonstrate methods to propagate ground cover.

The student will be able to describe and demonstrate layering.

The student will be able to describe and perform planting of ground cover seed.

The student will be able to describe and demonstrate troubleshooting techniques.

The student will be able to describe and identify mowing internship.

The student will be able to describe and demonstrate proper machine maintenance.

The student will be able to describe and perform cutting of at least five acres per week for four weeks.

The student will be able to describe and demonstrate the ability to properly use a power trimmer and blower.

The student will be able to describe and identify environmental sustainability.

The student will be able to describe and identify waste disposal methods for this industry according to EPA and the industry.

The student will be able to describe and identify the process of life cycle analysis in this industry based on industry guidelines.

The student will be able to describe and identify recycled materials by label and industry practice.

The student will be able to identify and define “low emission” and give two examples.

The student will be able to describe and identify new “green” materials now being introduced or currently used in this industry.

The student will be able to describe and identify new “green” practices and methods being instituted or currently employed within this industry.

The student will be able to describe and explain the term “low Impact” as it relates to the environment.

ASSESSMENT OF LEARNER OUTCOMES:
Student progress is evaluated by means that include, but are not limited to, exams written assignments and class participation.

SPECIAL NOTES:
This syllabus is subject to change at the discretion of the instructor. Material included is intended to provide an outline of the course and rules that the instructor will adhere to in evaluating the student’s progress. However, this syllabus is not intended to be a legal contract. Questions regarding the syllabus are welcome any time.

Kansas City Kansas Community College is committed to an appreciation of diversity with respect for the differences among the diverse groups comprising our students, faculty, and staff that is free of bigotry and discrimination. Kansas City Kansas Community College is committed to providing a multicultural education and environment that reflects and respects diversity and that seeks to increase understanding.
Kansas City Kansas Community College offers equal educational opportunity to all students as well as serving as an equal opportunity employer for all personnel. Various laws, including Title IX of the Educational Amendments of 1972, require the college’s policy on non-discrimination be administered without regard to race, color, age, sex, religion, national origin, physical handicap, or veteran status and that such policy be made known.

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