



TECHNICAL COLLEGE OF THE LOWCOUNTRY

Technical College of the Lowcountry
921 Ribaut Road
Beaufort, SC 29901

Arts & Sciences Division
Building 9, Room 102
843-525-8281

HRT 104

Landscape Planning and Implementation

Course Description

This course introduces site analysis, landscape design and drafting, project estimating, landscape installation and maintenance techniques for a successful landscape.

Prerequisite: ENG 100, MAT 101, RDG 100.

3.0 Cr (2.0 lecture, 3.0 lab, 0 other)

Course Focus

Landscape Planning and Implementation is a study of landscape design and drafting as well as landscape installation techniques. Instruction will be divided between interactive lecture and hands-on lab.

Text and References

Halfacre, R. Gordon, and Anne R. Shawcroft. Landscape Plants of the Southeast. Raleigh, NC: Sparks, 1989.

Dirr, Michael. Manual of Woody Landscape Plants: Their Identification, Ornamental Characteristics, Culture, Propagation and Uses. Champaign, IL: Stipes Pub., 1998.

Core Curriculum Competencies

The purpose of this course is to enable the student to successfully design and install a landscape project. Starting with site analysis and customer goals, the student will be able to design a landscape including plant and site recommendations, graphically represent those landscape decisions, provide estimates for work, successfully install a landscape, and have the knowledge to maintain that landscape after installation. These skills will be demonstrated by assessments on a series of graded projects and on the common final exam. The student will demonstrate the following critical thinking objectives:

Analysis of a site to accommodate the needs of the property owner as well as the surrounding environment.

- Make landscape design decisions using sound design principles
- Ability to graphically convey suggested landscape decisions.
- Estimate costs associated with installation.
- Successfully implement a landscape installation.
- Gain knowledge of best maintenance techniques for the project once installed.

Course Goals

The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives. (*designates a CRUCIAL goal)

1. Articulate the goals of the customer in regards to desired landscape outcomes.
2. Analyze existing property conditions in regards to issues (erosion; too high of maintenance needs; drainage; privacy; pathways; views; ability to meet customer's needs for pets, children, entertaining).*
3. Analyze property for existing microclimates and conditions (sun/shade; wet/dry; pervasive wind directions; North-South-East-West orientation; identifying soil types).*
4. Demonstrate the ability to interpret a site survey in order to cull information.
5. Demonstrate the ability to accurately measure existing plants; permanent structures; and relevant details (window placements; pathways; doors; access and egress) on a property.*
6. Demonstrate the ability to document said measurements.
7. Demonstrate the ability to transfer accurate measurements to paper using a pre-determined scale for accuracy.*
8. Demonstrate where North, South, East, and West directions are located and discuss the significance of each in the landscape.
9. Demonstrate the ability to create a Master Landscape Base Map in order to proceed with landscape design.*
10. Discuss the difference between scales in landscape design and have the ability to interpret them.
11. Demonstrate drafting techniques.
12. Discuss the size classifications of plants – Ground Covers, Vines, 1-4 feet, 4-6 feet, 6-12 feet, small trees and large trees.*
13. Describe texture differences between plants.
14. Identify seasonal differences in plants including blooms, bark, seeds, berries, fall color, architectural interest, and color of new growth.
15. Discuss the difference between evergreen and deciduous plants.*
16. Discuss the differences between annuals, biennials, perennials, and woody shrubs.*
17. Discuss USDA Hardiness Zones.
18. Have knowledge of USDA Hardiness zones of plants to consider in this environment.
19. Discuss hardiness vs. heat tolerance.
20. Develop knowledge of a basic template of plants that work in this region.*
21. Discuss the cultural needs of plants – sun/shade, wet/dry, soil requirements, fertility needs, drainage needs, etc.*
22. Demonstrate the ability to make landscape design decisions concerning turf, plants, and use of space.
23. Discuss the differences in basic design theories – curves vs. straight lines, native plants, single color, cutting gardens, edible gardens, healing gardens, etc.
24. Discuss the significance of using odd numbers vs. even in landscape design.
25. Discuss 'stair steps', layers and/or fascia plantings when designing a landscape.
26. Discuss plant combinations concerning texture, color, scale, proportion, bloom period, seasonal interest and spacing.*
27. Discuss different types of turf and best use scenarios.
28. Demonstrate the ability to make landscape recommendations to accomplish customer goals balanced with environmental needs.*
29. Discuss Conceptual vs. Master Landscape Plans.
30. Demonstrate the ability to graphically represent the landscape recommendations. This requires knowledge of spacing, scale, mature size of plants, combinations with other plants, and short and long term goals of the project.*

31. Demonstrate strong drafting skills for aesthetically pleasing landscape designs.
32. Demonstrate the ability to adequately label a landscape design covering a North arrow, scale, a title block, identification of plants, and identification of existing structures.
33. Discuss the need and layout for a Notes Section on a landscape plan.
34. Demonstrate a basic knowledge of graphic symbols used in landscape design.*
35. Discuss different templates, scales and benefits of hand drawn vs. CAD prepared design.
36. Demonstrate the ability to identify and quantify plants in a landscape design.*
37. Present a prepared Master Landscape Plan including reasoning for decisions and how customer's goals and environmental goals are being met.*
38. Discuss rates for design/consultations and options for tracking time spent on a landscape project.
39. Demonstrate a working knowledge of current landscaping costs for labor and materials.
40. Demonstrate an ability to estimate time necessary to perform landscape tasks.
41. Discuss what constitutes overhead expenses and how they factor into estimating a project.
42. Discuss policies on plant replacements, warranties, and guarantees.
43. Discuss what is included in a customer walk-through after a project is installed.
44. Demonstrate the ability to source plant material and discuss options for plant alternatives.
45. Demonstrate the ability to choose optimum quality in plant material as well as other materials used on a job.*
46. Demonstrate the ability to determine a time line for a project including delivery or collection of materials and the time to install while accommodating delay issues from weather or other sources.
47. Discuss labor needs – sources, training, transportation, etc.
48. Discuss prepping a site, which can include removals, grading, addition of soil, creation of drainage, etc.
49. Discuss the chronology of a landscape installation from site prep through watering it in.*
50. Demonstrate the ability to lay out bed edges illustrated in the Master Landscape Plan using different techniques (spray paint and garden hoses).
51. Demonstrate the ability to layout the plant design prior to planting.
52. Demonstrate and discuss the reasoning behind digging, re-checking and then planting plants and when this three-step process is necessary.
53. Discuss fertilization techniques when installing a landscape.
54. Demonstrate proper planting techniques for different types of plants.*
55. Discuss different types of mulch to use and benefits and drawbacks of each.
56. Discuss the various types of irrigation and the pros and cons of each.
57. Demonstrate pruning knowledge for different categories of plants.
58. Discuss proper fertilization techniques for different categories of plants.
59. Discuss organic matter and how it benefits plant material.
60. Discuss initial irrigation settings for a new installation compared to settings after 1 year and 5 years.
61. Demonstrate knowledge of major pest issues in this region and preferred techniques to deal with them.
62. Understand the basics of IPM.
63. Explain the process for performing a soil test.

Student Contributions

Classes are designed to employ a variety of teaching techniques. In order to maximize learning, required readings should be done prior to a unit. If a student is falling behind in lab performance or academic achievement, it is imperative to seek immediate assistance from the instructors.

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Course Evaluation:

1. Student progress will be evaluated through a series of tests, quizzes, in-class and out-of-class assignments.
2. Blackboard: lecture notes, handouts, podcasts, study hints, tutor information, syllabi, and other course information are available on the course blackboard page.
3. Laboratory Component: This course has a required lab component, which supplements the information presented in lecture. The lab will be independently evaluated primarily through lab practical's and in-class and out-of-class assignments. For specific details about lab evaluations, please refer to the attachment to this syllabus.

Grading Scale:

90-100 =	A
80-89 =	B
70-79 =	C
60-69 =	D
Below 60=	F

Course Schedule

The class meets for 2.0 lecture/presentation hours and 3.0 lab hours per week.

STATEMENT OF NON-DISCRIMINATION

The Technical College of the Lowcountry is committed to a policy of equal opportunity for all qualified applicants for admissions or employment without regard to race, gender, national origin, age, religion, marital status, veteran status, disability, or political affiliation or belief.

ADA STATEMENT

The Technical College of the Lowcountry provides access, equal opportunity and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. To request disability accommodation, contact the counselor for students with disabilities at (843) 525-8219 or (843) 525-8242 during the first ten business days of the academic term.

ACADEMIC MISCONDUCT

There is no tolerance at TCL for academic dishonesty and misconduct. The College expects all students to conduct themselves with dignity and to maintain high standards of responsible citizenship.

It is the student's responsibility to address any questions regarding what might constitute academic misconduct to the course instructor for further clarification.

The College adheres to the Student Code for the South Carolina Technical College System. Copies of the Student Code and Grievance Procedure are provided in the *TCL Student Handbook*, the Division Office, and the Learning Resources Center.

ATTENDANCE

The College's statement of policy indicates that students must attend ninety percent of total class hours or they will be in violation of the attendance policy.

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- Students not physically attending class during the first ten calendar days from the start of the semester must be dropped from the class for NOT ATTENDING.
 - Students taking an online/internet class must sign in **and** complete an assignment designated by the instructor within the first ten calendar days from the start of the semester to indicate attendance in the class. Students not attending class during the first ten calendar days from the start of the semester must be dropped from the class for NOT ATTENDING.
 - Reinstatement requires the signature of the division dean.
 - In the event it becomes necessary for a student to withdraw from the course **OR if a student stops attending class, it is the student's responsibility to contact the instructor via e-mail requesting to be withdrawn from the class.** Withdrawing from class may have consequences associated with financial aid and time to completion. Students are strongly encouraged to consult with Financial Aid prior to withdrawing from any class, particularly if the student is currently on a warning or probation status.
 - When a student exceeds the allowed absences, the student is in violation of the attendance policy. The instructor **MUST** withdraw the student with a grade of "W", "WP", or "WF" depending on the date the student exceeded the allowed absences and the student's progress up to the last date of attendance
- or
- Under extenuating circumstances and at the discretion of the faculty member teaching the class, allow the student to continue in the class and make-up the work. This exception must be documented at the time the allowed absences are exceeded.
 - Absences are counted from the first day of class. There are no "excused" absences. All absences are counted, regardless of the reason for the absence.
 - A student must take the final exam or be excused from the final exam in order to earn a non-withdrawal grade.
 - A copy of TCL's **STATEMENT OF POLICY NUMBER: 3-1-307 CLASS ATTENDANCE (WITHDRAWAL)** is on file in the Division Office and in the Learning Resources Center.

ONLINE ATTENDANCE PROCEDURE

For all online courses, students must complete an assignment designated by the instructor during the first week of classes. The instructor will drop the student from the course if the initial assignment is not completed.

Instructors will withdraw students from the class when 90% attendance is not maintained. Attendance in an online course is defined by regular course access and by timely completion of assignments as required by the instructor. Each student will be expected to access the web class at least once a week and complete 90% of assignments on time. Additional access is encouraged and may be necessary for successful completion of classes.

Failure to log in and complete assignments will result in the student being withdrawn from the course. The instructor will assign a grade of "W," "WP," or "WF" based upon the student's academic standing as the last date of attendance, which is the last login. Students are responsible for any financial matters associated with an administrative withdrawal. If a student fails to email the instructor (using the my.tcl.edu email account) requesting to be dropped from the course and has not submitted the initial assignment required during the first week of class, the instructor will assign a "Never Attended" code in the student information system (web-advisor) no later than ten calendar days after the first day of the class. Students who are dropped as a result of never attending the course are still responsible for all fees associated with the course.

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HAZARDOUS WEATHER

In case weather conditions are so severe that operation of the College may clearly pose a hardship on students and staff traveling to the College, notification of closing will be made through the following radio and television stations: WYKZ 98.7, WGCO 98.3, WGZO 103.1, WFXH 106.1, WWVW 106.9, WLOW 107.9, WGZR 104.9, WFXH 1130 AM, WLVA 101.1, WSOK 1230 AM, WAEV 97.3, WTOG TV, WTGS TV, WJWJ TV, and WSAV TV. Students, faculty and staff are highly encouraged to opt in to the Emergency Text Message Alert System. www.tcl.edu/textalert.asp.

EMERGENCY TEXT MESSAGE ALERT

Students, faculty and staff are highly encouraged to opt in to the Emergency Text Message Alert System. Participants receive immediate notification of emergency events and weather cancellations via text messaging on their cell phones. Participants can also opt in to receive non-emergency news and announcements. Go to www.tcl.edu. On the homepage, click on "emergency TextAlert at TCL" and fill out the form or go to www.tcl.edu/textalert.asp.

GRADING METHODOLOGY

The final grade must be 70 or more (a grade "C" or better) in order to pass the course and progress to the next course. Students absent from an examination or presentation will receive a "0" grade for the examination unless other arrangements are made with the individual instructor prior to the examination or presentation day or on the examination or presentation day before the test/presentation is scheduled to be given.

The student is responsible for notifying the instructor for the reason of the absence. It is also the responsibility of the student to contact the appropriate instructor to arrange to make up the examination. Arrangements may be completed by telephone.

If the instructor is not available, a message should be left on the instructor's voice mail AND with another member of the faculty or administrative assistant. The make-up exam will be scheduled and the instructor will decide the method of examination. Messages sent by other students are unacceptable.

SAFETY ADDENDUM

Purpose

The purpose of this safety addendum is to provide each student with safety guidelines during an incident, emergency, or disaster at TCL. In addition, it provides students guidelines for lockdown procedures, evacuation procedures, and active shooter.

Definitions

An incident is any event, potential or actual, that may impact normal operations but has no immediate health or life threatening consideration or serious effect on the overall functional capacity of the College. An event of this nature should be reported to the Office of the Vice President for Administrative Services. Also, notify the off-site campus administrator if applicable.

An emergency is any incident, potential or actual, which may endanger life or health or which affects an entire building or buildings, and will disrupt the overall operations of the College. Outside emergency services will probably be required, as well as major efforts from campus support services. Major policy considerations and decisions will usually be required from the college administration during times of crises. An emergency should be reported immediately by directly using **911** if life or health/injury considerations exist and then to the

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Office of the President or Vice President for Administrative Services as quickly as possible. Also, notify the off-site campus administrator if applicable.

A disaster is any event or occurrence that has taken place and has seriously impaired or halted the operations of the College. In some cases, mass personnel casualties and severe property damage may be sustained. A coordinated effort of all campus-wide resources is required to effectively control the situation. Outside emergency services will be essential. In all cases of disaster, an Emergency Control Center will be activated, and the appropriate support and operational plans will be executed. The disaster should be immediately reported, first by calling **911** and then to the Office of the President or Vice President for Administrative Services. Also, notify the off-site campus administrator if applicable.

Types of Emergencies

- Hurricane
- Tornado
- Fire
- Biochemical or Radiation Spill
- Explosion/Bomb
- Downed Aircraft (crash which directly impacts campus operations)
- Utility Failures
- Violent or criminal behavior
- Psychological Crisis

Procedures:

Active Shooter

Run/hide/fight (<http://www.fbi.gov/about-us/cirg/active-shooter-and-mass-casualty-incidents/run-hide-fight-video>)

Building Evacuation

1. Building evacuations occur when an alarm sounds and/or upon notification by Security or the Emergency Director.
2. When the building evacuation alarm is activated during an emergency, individuals should exit according to the building evacuation plan and alert others to do the same.
3. Once outside, individuals should proceed to a clear area that is at least 500 feet away from the affected building. Streets, fire lanes, hydrant areas and walkways should be kept clear for emergency vehicles and personnel.
4. Individuals should not return to an evacuated building unless told to do so by Security or the Emergency Director.
5. Individuals should assist persons with disabilities in exiting the building. Elevators are reserved for disabled persons

Campus Evacuation

1. A uniformed Security Guard, the Emergency Director, or an Emergency Resource Team member will announce evacuation of all or part of the campus grounds.

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2. All persons (students and staff) are to immediately vacate the campus, or in the case of a partial evacuation relocate to another part of the campus grounds as directed.

Lockdown

1. Clear the halls
2. Report to the nearest classroom/office
3. Assist those needing special assistance
4. Ensure classroom/office doors are closed and locked
5. Turn off lights
6. Stay away from doors and windows (out of the line of sight)
7. BE QUIET and follow instructor's directions
8. Silence cell phones
9. Wait for the "All Clear" before leaving