



Western Technical College

## 10001132 Landscape Construction

### Course Outcome Summary

#### Course Information

<b>Description</b>	The principles and practices for construction and installation of various landscape features in the urban environment will be introduced. Construction techniques relevant to interpreting blueprints, structural component, and following manufacturer's specifications will be covered. Safety practices will be emphasized for construction practices including: paver walks and patios, steps, irrigation systems, water features, retaining walls, and fencing. Sustainability for construction practices will be emphasized in all labs and field experiences.
<b>Career Cluster</b>	Agriculture, Food and Natural Resources
<b>Instructional Level</b>	Associate Degree Courses
<b>Total Credits</b>	3
<b>Total Hours</b>	72

#### Textbooks

*Allan Block Contractor Certification Binder*. Publisher: Allan Block Corporation.

#### Learner Supplies

Work gloves. **Vendor:** To be discussed in class. Required.

Steel toe shoes (recommended) or enclosed shoes. **Vendor:** To be discussed in class. Required.

Safety glass that meet Z87 OSHA guidelines. **Vendor:** Campus Shop. Required.

Type II safety helmet. **Vendor:** To be discussed in class. Required.

#### Experiential Learning

1. Community Based Learning Project

#### Course Competencies

1. Interpret contractor installation manuals.

## **Criteria**

*You will know you are successful when*

- 1.1. you conduct a job site analysis.
- 1.2. you determine which installation process(es) to use.
- 1.3. you outline a detailed step by step installation process.
- 1.4. you select the tools that are needed to complete the installation.

## **Learning Objectives**

- 1.a. Identify which site parameters fit the construction situation.
- 1.b. Outline the installation process.
- 1.c. Identify what tools are needed to accomplish the project.
- 1.d. Interpret landscape construction drawings, including correct scale and dimensioning.

## **2. Quantify the materials needed for project.**

### **Criteria**

*You will know you are successful when*

- 2.1. you calculate the square yards of base required by the manufacturer.
- 2.2. you calculate the square feet of product required by the manufacturer.
- 2.3. you assess all additional hardware needed and calculate quantities.

### **Learning Objectives**

- 2.a. Interpret landscape construction specifications and identify appropriate materials for task.
- 2.b. Calculate needed square yards of base.
- 2.c. Calculate needed square feet of product.
- 2.d. Calculate quantities of installation hardware.

## **3. Analyze the landscape construction process.**

### **Criteria**

*You will know you are successful when*

- 3.1. you outline in sequence all the steps from site analysis to finishing.
- 3.2. you follow the state/utility mandated process for utility locating.
- 3.3. you forecast what subcontractors are needed and when.

### **Learning Objectives**

- 3.a. Identify each step needed to complete the construction process.
- 3.b. Conduct a proper utility locate.
- 3.c. Identify needed subcontractors.

## **4. Manage risk at the landscape construction site.**

### **Criteria**

*You will know you are successful when*

- 4.1. you identify and mitigate inherent risks of construction sites.
- 4.2. you demonstrate how to safely work by utilities and follow OSHA mandates.
- 4.3. you conduct a safety briefing to your crew on that day's objective.
- 4.4. you ensure personal protective equipment is used as needed.

### **Learning Objectives**

- 4.a. Identify the inherent risks of construction sites.
- 4.b. Identify safe practices to work by utilities.
- 4.c. Review OSHA guidelines.
- 4.d. Conduct a safety briefing at construction site(s).
- 4.e. Identify protective equipment needed for specific projects / sites.

## **5. Verify project details with client.**

### **Criteria**

*You will know you are successful when*

- 5.1. you listen intently and verify that you addressed client questions.
- 5.2. you update the client on progress and seek confirmation for project details.
- 5.3. you validate your recommendations in accordance to OSHA and manufacturer specifications.

#### **Learning Objectives**

- 5.a. Actively listen to client's questions.
- 5.b. Engage client with project details.
- 5.c. Educate client on your recommendations.

### **6. Operate landscape construction equipment.**

#### **Criteria**

*You will know you are successful when*

- 6.1. you check fluid levels and notify instructor if loose/damaged parts are found.
- 6.2. you follow manufacturer operating procedures and do so in a controlled manner.
- 6.3. you are constantly aware of your surroundings for other workers / safety hazards.

#### **Learning Objectives**

- 6.a. Perform pre-operational checks that include safety checks.
- 6.b. Operate equipment per manufacturer recommendations.
- 6.c. Apply situational awareness when operating equipment.

### **7. Install base for hardscape project.**

#### **Criteria**

*You will know you are successful when*

- 7.1. you excavate the correct length x width x depth for base area and level the bottom.
- 7.2. you install commercial grade fabric including correct grade pin locations and heights.
- 7.3. you fill the base area with 1 inch of gravel and compact it in two opposite directions until you reach your desired height.
- 7.4. you follow manufacturer recommendations when finalizing base with bedding sand and/or water abatement products.

#### **Learning Objectives**

- 7.a. Excavate the project base area.
- 7.b. Install fabric and grade pins.
- 7.c. Compact gravel in 1-inch layers.
- 7.d. Finalize base preparation.

### **8. Install landscape feature according to project details.**

#### **Criteria**

*You will know you are successful when*

- 8.1. you install the landscape feature according to client and manufacture recommendations.
- 8.2. you determine if a sub-contractor is needed to install add-on features.
- 8.3. you install add-on features according to manufacture recommendations or contract with sub-contractor.
- 8.4. you re-install landscaping around the construction site based on project details.

#### **Learning Objectives**

- 8.a. Install or build landscape feature practicing installation methods for different features (retaining walls, pavers, water features, etc).
- 8.b. Determine how to install any add-on features including if a sub-contractor is needed.
- 8.c. Reinstall landscaping around construction site.

### **9. Verify installation follows industry best practices.**

#### **Criteria**

*You will know you are successful when*

- 9.1. you observe that the installation is moving forward in a systematic way.
- 9.2. you effectively communicate with the crew in a manner that is professional.
- 9.3. you seek clarification to ensure the project is completed with high craftsmanship.
- 9.4. you identify ways to overcome potential setbacks to installation.

**Learning Objectives**

- 9.a. Follow the manufacturers installation instructions.
- 9.b. Manage the installation crew during project.
- 9.c. Seek clarification when questions arise.
- 9.d. Explore common setbacks to installation plans and how to overcome them.