

PST-1510: LANDSCAPE CONTRACTING

Cuyahoga Community College

Viewing: PST-1510 : Landscape Contracting

Board of Trustees:

December 2021

Academic Term:

Fall 2022

Subject Code

PST - Plant Science/Landscape Tech.

Course Number:

1510

Title:

Landscape Contracting

Catalog Description:

In-depth study of major business principles involved across the green industry including material and labor estimation, management of employees, work sites, inventory, and clients, contract and labor laws, and accounting principles. Principles learned can be applied to both service-based and supply-based green industry business models.

Credit Hour(s):

3

Lecture Hour(s):

3

Requisites

Prerequisite and Corequisite

MATH-1190 Algebraic and Quantitative Reasoning, or MATH 1240 Contemporary Mathematics, or qualified Math placement; or departmental approval.

Outcomes

Course Outcome(s):

Describe and elaborate on the services available by green industry contracting companies.

Essential Learning Outcome Mapping:

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

Objective(s):

1. Discuss service lines offered in landscape maintenance, landscape construction, snow and ice management, and tree care operations.
2. Evaluate the seasonality of services to maximize profitability.
3. Discuss pros and cons of subcontracting work.

Course Outcome(s):

Explain the impact of business and contract laws and how to navigate the legal systems governing green industry businesses.

Essential Learning Outcome Mapping:

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

Objective(s):

1. Compare and contrast different business incorporation methods.
2. Evaluate business insurance requirements and assess exposure levels of green industry businesses.
3. Discuss government regulatory bodies and corresponding laws with which a business must comply.

Course Outcome(s):

Describe and elaborate on supply-based green industry businesses.

Essential Learning Outcome Mapping:

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

Objective(s):

1. Compare and contrast retail versus wholesale and re-wholesale business models.
2. Compare and contrast suppliers of hard goods versus soft goods.
3. Identify key roles played by both retail and wholesale operations.

Course Outcome(s):

Accurately measure and estimate materials and labor for service-based operations.

Essential Learning Outcome Mapping:

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

Objective(s):

1. Identify each labor task needed to accomplish a specified job.
2. Apply industry labor standards to measurements to determine labor hours for each maintenance task allowing for site-specific adjustments as needed.
3. Combine labor and material calculations to create an accurate estimate and bid for residential and commercial properties.

Course Outcome(s):

Describe and elaborate on the primary elements of profitable pricing structures.

Objective(s):

1. Identify industry standards of labor and materials.
2. Discuss concepts of material markup and labor markup.
3. Discuss differences between dual overhead rate method and time and material methods.
4. Apply concepts of breakeven point, direct costs, overhead, labor burden, profit, profit markup, assembly, contingency, crew average wage, and other pertinent terms and concepts to a successful project estimate.

Course Outcome(s):

Interpret landscape maintenance and construction documents.

Essential Learning Outcome Mapping:

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

Objective(s):

1. Use engineer and architect scales to measure a construction document.
2. Identify and interpret job specifications.
3. Perform takeoff measurements from existing documents.
4. Utilize Geographic Information Systems (GIS) when appropriate to perform takeoffs.

Course Outcome(s):

Evaluate financial statements and assess the financial health of green industry businesses.

Essential Learning Outcome Mapping:

Quantitative Reasoning: Analyze problems, including real-world scenarios, through the application of mathematical and numerical concepts and skills, including the interpretation of data, tables, charts, or graphs.

Objective(s):

1. Perform financial analysis using sample financial statements.
 2. Calculate various ratios to evaluate financial fitness of a green industry business.
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Methods of Evaluation:

1. Quiz
2. Midterm exam
3. Final exam
4. Graded assignments

Course Content Outline:

1. Landscape maintenance and contracting services
 - a. Turf-grass
 - i. Cutting
 - ii. Fertilization
 - iii. Aeration
 - iv. Dethatching
 - b. Plant beds
 - i. Mulching
 - ii. Seasonal maintenance
 - c. Plant materials
 - i. Pruning
 - ii. Installation
 - iii. Seasonal Maintenance
 - d. Hardscapes
 - i. Installation
2. Landscape site variables
 - a. Environmental conditions
 - b. Physiographic conditions
 - c. Site access and other surrounding influences
 - d. Landscape contractor production limitations
 - e. Subcontracting work
3. Estimation procedures
 - a. Site measuring
 - b. Labor hour development
 - c. Material pricing
 - d. Equipment pricing
 - e. Project logistics
 - f. Financial variables
 - g. Competitive pricing strategies
4. Construction documents
 - a. Landscape construction and implementation plans and details
 - b. Maintenance and construction specifications
 - c. Communicating project procedural directions
5. Financial statements
 - a. Income statement
 - b. Balance sheet
 - c. Statement of cash flows
 - d. Financial ratios
 - e. Direct overhead

f. Indirect overhead

6. Industry business standards and techniques

- a. Management styles
- b. Overhead cost recovery
- c. Local, state, and federal government business regulations
- d. Community impact
- e. Business plans

Resources

Cohan, S.M. *Business Principles of Landscape Contracting*. 3rd ed. Routledge, 2018.

Sauter, D. *Landscape Construction*. 3rd ed. Delmar Cengage Learning, 2011.

Hensley, D. *Professional Landscape Management*. 3rd ed. Stipes, 2010.

H. Field. *Landscape Surveying*. 2nd ed. Delmar Cengage Learning, 2011.

Zimmerman, Astrid. *Constructing Landscape: Materials, Techniques, Structural Components*. 3rd ed. 2015,

Resources Other

Landscape Management Network (LMN) <https://golmn.com/> 2021

Accredited Snow Contractors Association ANSI A1000-2014: <https://www.ascaonline.org/page/ansi-standards/> 2021.

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