Principles of Landscape Design Student 5 Phase Project

Project Overview:

This landscape design project is divided into 5 different phases of development to help you better manage your time and ideas. First you need to create the scenario from which you are working. Next, choose the materials that you want to work with. Third, calculate the cost of the landscape. Then draw out the landscape neatly with scale. Finally, you will create 3 presentation products.

This project will be graded in each development phase and overall participation and effort.

Phase 1 – Client and Site Development – **Total Points – 50 points**
   a. Client Information Collection Sheet – 10 points
   b. Site Analysis Checklist – 10 points
   c. One Page Paper on Needs and Site – 30 points

Phase 2 – Plant and Material Selection – **Total Points – 100 points**
   a. 25 different species with information @ 3pts each – 75 points
   b. 5 different hardscape materials with info @ 3pts each – 15 points
   c. 1 water feature with information @ 4pts – 4 points
   d. 1 turf grass and 1 mulch @3pts each – 6 points

Phase 3 – Pricing the Landscape – **Total Points – 93 points**
   a. Itemized categories with correct info/calculation @ 2pts each – 64 points
   b. 3 total category costs calculated correctly @3pts each – 9 points
   c. Total material cost, contingency, design fee and total cost – 20 points

Phase 4 – Planning and Drawing the Landscape – **Total Points – 75 points**
   a. Rough Bubble sketch – 10 points
   b. 33 required materials included @1 pt each – 33 points
   c. Key that correctly matches drawing – 16 points
   d. Correct use of scale and scale indicated on drawing – 5 points
   e. Neatness, use of ruler and color – 11 points

Phase 5 – Presentation of the Landscape – **Total Points – 102 Points**
   a. Slide Presentation – 30 total points
      a. Client needs and initial site description – 5 points
      b. Project goals, 5 design principles, and influence – 10 points
      c. Pictures and descriptions of 10 items – 10 points
      d. Category costs and total cost for the landscape – 5 points
   b. Tri-Fold Board – 30 total points
      a. Required elements (name, plan, cost, key) @ 5pts each – 20 points
      b. Neat, easy to read, quality board – 10 points
   c. Memo to Client – 42 Points
      a. Design Rationale – 7 points
      b. Influences and inspiration used for the design – 7 points
      c. Explain the principles of design used – 7 points
      d. Justification of plant species and colors selected – 7 points
      e. Justification of hardscape material selected – 7 points
      f. Summarize the cost for the design – 7 points

Overall Participation and Effort Grade – **Total Points - 30 points**
TOTAL POINTS AVAILABLE – 450 POINTS
Phases of Development:

Phase 1 – Client and Site Development
1. Choose a partner or work by yourself then select a site / establishment to design.
   a. Suggested sites: House, Business, Restaurant, School, Sports Field, Park
2. Establish the town in which your landscape will be located (impacts plant selection).
3. Utilize the Client Information Collection worksheet to create the needs of the client.
4. Utilize the Site Analysis Checklist to create the initial site quality.
5. Report the needs of the client and describe the initial site quality in a one-page, double spaced paper.
   a. Include descriptions of land area, existing vegetation and structures, water, etc.
   b. Include descriptions of who is going to use the property and for what purpose.
   c. Include descriptions of what you plan to accomplish in the landscape design.

Phase 2 – Plant and Material Selection – A MINIMUM OF THE FOLLOWING
1. Select 25 DIFFERENT plant species for the appropriate hardiness zone.
   a. Collect the following information for each species: (record on Item Sheet)
      i. Common Name and Variety
      ii. Scientific Name
      iii. Color
      iv. How plant will be sold – Bare root, container, ball and burlap, etc
      v. Hardiness Zone and Sun, Shade, Partial Shade
      vi. Water Use / Maintenance
      vii. Mature Size
      viii. Cost per Plant
2. Select 5 DIFFERENT hardscape materials.
   a. Collect the following information for each species: (record on Item Sheet)
      i. Product Name and Function
      ii. Price
      iii. Description such as color, texture, height, etc.
3. Select 1 water feature to be installed.
   a. Collect the following information for the water feature: (record on Item Sheet)
      i. Product Name and Function
      ii. Price
      iii. Description such as color, texture, height, etc.
4. Select AT LEAST 1 type of turf grass and 1 type of mulch to be installed.
   a. Collect the following information: (record on Item Sheet)
      i. Product Name and Function
      ii. Price
      iii. Description such as color, texture, height, etc.

Phase 3 – Pricing the Landscape
1. Utilize the information gathered in product selection and the Pricing Sheet to get price.
   a. Will need to calculate square footage, volumes, quantities, etc.
2. Be sure to include installation costs, contingency costs and design fees.

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Phase 4 – Planning and Drawing the Landscape
1. Using the Principles of Design, create a rough/bubble sketch of the landscape.
2. The final diagram needs to be drawn with a ruler, templates and SCALE.
3. The final diagram needs to include the following items:
    a. 25 different plant species
    b. 5 different hardscape materials
    c. 1 water feature
    d. 1 type of turf grass
    e. 1 type of mulch
    f. A KEY THAT EXPLAINS ALL DIFFERENT MATERIALS!!!!

Phase 5 – Presentation of the Landscape
1. Prepare a Slide Presentation that outlines the following information:
    a. Overview of client needs and initial site.
    b. Overview of project goals
        i. Include 5 design principles.
        ii. Discuss elements of historical landscape influence.
    c. Pictures and descriptions of key plants and hardscapes used (10 items).
    d. Category costs and total cost for the landscape.
2. Create a tri-fold board with the following items:
    a. Landscape company name
    b. Landscape plan
    c. Key for plants, hardscapes, water feature, turf grass, mulch
    d. Landscape Cost (print an extra copy of the Price Sheet and attach)
3. Summarize the landscape design in a one page memo to the client.
    a. Include the following information:
        i. Rationale for the design
        ii. Influences and inspiration used for the design
        iii. Explain the principles of design used
        iv. Justify plant species and color selection
        v. Justify hardscape material selection
        vi. Summarize the cost for the design

AFNR Standards

PS.04.01.01.a. Define design and identify design elements.
PS.04.01.01.b. Explain design elements of line, form, texture and color and express the visual effect each has on the viewer.
PS.04.01.01.c. Select plants, hard goods, supplies and other materials for use in a design based on a range of criteria.
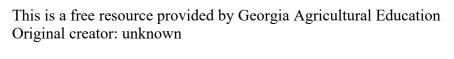**PS.04.01.02.a.** Discuss the applications of art in agriculture/horticulture.
PS.04.01.02.b. Discuss principles of design that form the basis of artistic impression.
PS.04.01.02.c. Create and implement designs by following established principles of art.

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Landscape Design Project

Student

Reference Packet

Based on Landscaping Principles and Practices Text by Jack Ingels

Choosing the Landscape Site

The land can be used for many different purposes

    Land is can be used for agricultural, residential, commercial, recreational and wilderness

All pieces of ground have their own unique characteristics

    These characteristics will determine what can be done with the land

        For example: Don't build a house in a swamp

    Land characteristics can be natural or man-made

        Ex: Natural – Terrain, Slope, Soil, Existing Plants, Wind, Temperature, Rainfall

        Ex: Man-Made – Buildings, Utilities, Paved Areas, Adjacent Properties

Human activity occurs best on flat or nearly level ground

    Otherwise, may need to level the ground out through grading (removing and adding soil)

        Provides construction sites, reduces runoff

Conduct a site analysis to evaluate the quality of the land and identify any problem areas

Client Needs

Can gather information from a client through personal interviews, conference calls, emails, etc

Clients have opinions, dreams, expectations, preferences, and attitudes to be considered

    Think about color, texture, lifestyle

Need to determine what the landscape is going to be used for

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Elements of a Landscape

Landscapes have four types of areas

Public – portion seen and used by anyone

Family Living / User Area – where family or users interact and carry out social activities

Service – location for garbage, storage, extra parking, dog yards

Private Living – (may not be included) a private space connected to the bedrooms

Landscapes should be designed to have a ceiling, floor and walls

Can use turf, plants, trees, fences, buildings, etc to create the feeling of a room

The three universal influences of a landscape, crosses all historical landscape influences

Climate, Geography and Religion

The six elements used in designs and all art works:

- Line, Form, Space, Color, Texture, and Value

The Principles of Design:

1. Balance – the visual weight of a design is equal on all sides
   a. Symmetrical Balance – landscape is identical on the left and right (mirror)
      i. Formal
   b. Asymmetrical Balance – landscape is not identical but "weighs" the same
      i. Modern

2. Emphasis – creation of a component of the landscape where the eye is first drawn (focal point)
   a. The area of greatest visual impact / stands out most
   b. Items emphasized include: entries, exits, park benches, or water fountains
   c. Created through use of contrast and lines
      i. Dark and light color
      ii. Smooth and rough texture

3. Scale – how parts of a landscape compare to each other in regards to size
   a. Deals with proportion and fit
   b. Tree should not dwarf house and house should not dwarf shrubs
   c. Human-Scale – don't make people feel huge or tiny
      i. If needed, add human size elements (bench, fountain)

4. Transition – gradual change
   a. Sharp changes add emphasis
   b. Human brains prefer smooth transitions

5. Repetition – creation of a pattern, repeated use of color, form, texture, etc
   a. Repetition creates a sense of orderliness
   b. Little Repetition – landscape feels organic and informal
   c. Strict Repetition – landscape feels formal and manicured
      i. Improper repetition can be stuffy, boring, disorderly, jumbled
   d. Repetition also creates Rhythm
      i. A sense of "movement" through repeated elements
         1. Closer placed items creates a faster beat or excitement
         2. Widespread elements creates a slower beat or relaxation

6. Variation – how different the parts of the landscape are → need a healthy balance
   a. Little variation create monotony (same everything)
   b. Too much variation looks disorderly

7. Unity – sense of landscape components belonging together
   a. Elements blend together with harmony

Plant Selection

Native Plants – plants occur naturally within a certain geographic location over a long period of time

Exotic Plants – plants introduced into an area by some means other than nature

Naturalized Plants – started as exotics by have adapted so well they are now found in nature

Plant Types

Annual – need to be replanted every year (ex: marigold)

Perennial – comes back year after year (ex: black-eyed susan)

Herbaceous plants – non woody plants – grasses and flowers

Woody plants – Trees, shrubs, vines and many ground covers

How plants are bought

Bare-root – dug from the field and soil washed from roots, least expensive

Balled and burlapped – plant dug out with a ball of soil around roots and wrapped in burlap

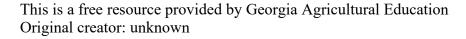Container – plants grown in pots, buckets, etc this is how most flowers are sold

Choosing the right plants

Evaluate the function of the plant (shade, privacy, color, focal point, etc)

Plant survival – look at USDA hardiness rating

Physical factors – mature size, shape, texture, color, flowering characteristics, root system

Also consider tree canopy density, branching, and deciduous vs conifer

Hardscaping Materials

All materials besides the vegetative plants

Architectural - Helps to adjust user's perception and understanding of a landscape

Engineering - Helps to solve problems in a landscape (block wind, sidewalks, reduce soil erosion)

Aesthetic - Helps to make the landscape more beautiful

Selection criteria for hardscape materials

     Function – enclose space, block views, park cars

     Cost – consider cost of product, installation and maintenance

     Strength – what will it be supporting? Patio vs Driveway, Wind vs Dog, etc

     Weather Effects – sun damage, flooding, drought

     Client Preference –

     Integration with Other Components of the Landscape – should complement design

     Maintenance Concerns – upkeep such as repainting, cleaning water features, etc

Water Features

Could be a fishpond, reflecting pool, fountain, swimming pool, stream, lake, ocean

Questions to consider with water features

     Is the primary purpose of the water feature appearance or function?

     If the purpose is appearance, what is the intended appeal?

     Is the water feature to look natural or crafted?

     Is the client aware of the maintenance required of a water feature?

     How much does the client want to spend?

Lighting Plan

Questions to consider with lighting a landscape

How can night lighting complement the design of the landscape and building?

What features of the building or landscape need to be highlighted?

What features should be hidden at night?

How will the landscape be used at night? How much light will be needed to support those activities without over-lighting the area?

Are areas of the landscape potentially dangerous at night and need safety or security light?