Unit 8: Understand the Principles and Practices of Landscape and Garden Design

Unit code: K/600/9885

QCF Level 3: BTEC National

Credit value: 10

Guided learning hours: 60

Aim and purpose

This unit aims to provide learners with an understanding of the principles and practices of landscape and garden design and how these can be applied in practice. This unit is primarily aimed at learners within a centre-based setting looking to progress into the sector or further education and training.

Unit introduction

The need for horticulturists to have good design skills is becoming more important as the public become more discerning in relation to high-quality landscape and garden designs.

This unit will give learners the knowledge and skills required to produce original landscape and garden design plans. Learners will investigate the elements and principles of good design practice, embracing concepts such as space, colour, shape, form, scale, proportion and texture.

The unit focuses on developing and improving learners' own design abilities. This is achieved through learners taking part in design activities, reflecting on their own design solutions and those of others. The design activities will allow learners to develop an understanding of the design process through producing plans and visualisations. On completion of this unit learners will be able to produce and present a range of plans and visualisations to a client based on established briefs and site constraints.

Learning outcomes

On completion of this unit a learner should:

1 Understand the elements and principles of design as they relate to landscape and garden design

2 Be able to produce landscape and garden design plans

3 Understand the production of concept plans

4 Be able to produce a range of plans and visualisations

5 Understand the production and delivery of presentation plans and visualisations to the client.

Unit content

1 Understand the elements and principles of design as they relate to landscape and garden design

Design principles applied to landscape and garden design: space (combination of solids and voids, enclosure using formal or informal boundaries, techniques to make spaces seem larger than they are); unity (use of repetitions, balance and symmetry, scale and proportion to create a feeling of unity in a garden); scale and proportion (use of scale to describe the relationship between different spaces, use of proportion to describe the relationship between different garden elements); focal points (use of focal points to direct where people look and move in a garden); colour (colour wheel, use of hue, harmony and contrast in designing planting schemes); form and texture (use of different plant forms and textures to create different effects); light and shade (use of light and shade to create dramatic effects, adaptation of plant use according to the available light conditions); the role that light and shade play in structuring a design; how design relates to the surrounding environment

Hard landscape features: eg walls, fencing, water features, pacing, buildings/structures; uses eg aesthetic, wildlife, storage, leisure, privacy; positioning of hard landscape features to meet needs of site and client

Soft landscape features: eg turf, bedding plants, herbaceous and perennial plants, shrubs, trees, container planting, hedges; uses eg aesthetic, security, privacy, shade, weed control, amenity; positioning of soft landscape features to meet needs of site and client

2 Be able to produce landscape and garden design plans

Graphic and design skills: concept plans (production, enhancement, development); use of standard notation for structures, hard surfaces, lawns, herbaceous planting, shrub planting, hedges and trees; invention of clear symbols where appropriate; appropriate use of scale; handwritten or printed text to label the plan; hierarchy of line and shading to add clarity to the design; colour rendering techniques

3 Understand the production of concept plans

Site information: site inventory of existing resources, features and services including access points; site analysis evaluating existing resources, features and services; horticultural potential; technical solutions to site issues; drainage; climate; soil; slope; shade; planning restrictions eg conservation areas, tree preservation orders, local planning laws; site evaluation

Garden design proposal: sketched designs/plans; site inventory; development of ideas; costings; working drawings; photographs/impressions, setting out plans

Research and graphic techniques: primary and secondary research eg questionnaires, magazines, visits; sketch designs; base and presentation plans; cross section and elevation plans; grids and forms

4 Be able to produce a range of plans and visualisations

Illustrating hard materials: walls; fencing; paving; water features; demonstrating practical and aesthetic reasons for choosing hard materials (roles in design)

Construction details: plan, construction detail drawings; scale, eg 1:50; on site; scaled elevations; 1-point perspectives; use of standard notation; scale symbols; colour rendering; hierarchy of line and shade to aid clarity

Illustrating soft materials: turf; bedding plants; herbaceous and perennial plants; shrubs; trees; indicating plant styles, texture and form to support aesthetic decisions; detailed design using different plant groups

5 Understand the production and delivery of presentation plans and visualisations to the client

Skills and techniques: present ideas using a range of visual media eg plans at differing scales, sketches, illustrations, storyboards or models, to communicate design solutions; use of graphic, audio-visual and computer aided presentation software, use of verbal presentation techniques; purpose of supporting documentation for design presentation

Assessment and grading criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria for a pass grade describe the level of achievement required to pass this unit.

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	**To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:**	**To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:**
P1 landscape materials and features and their uses [IE]	**M1** evaluate and select appropriated design proposals for a given site	
P2 describe methods of positioning hard and soft features to meet the needs of the site and the client		
P3 produce concept plans for a variety of locations, situations and functions [CT, RL, SM]		
P4 enhance and develop concept plans [CT, RL, SM]	**M2** produce a range of clear and well-illustrated concept plans to communicate design ideas to the client.	**D1** present final design proposals using a range of visual media to convey information in a professional and clear manner.
P5 explain how to produce garden design proposals and present ideas to clients		
P6 evaluate research and graphic techniques available to develop design concepts [IE]		
P7 describe how to evaluate the suitability of designs against client requirements		
P8 produce presentation plans in a variety of media		
P9 produce elevations, projection plans and 1 point perspectives in a variety of media		
P10 evaluate drawing effects, methods, marks and techniques for drawing and annotation		

P11	evaluate graphic, audio-visual and computer aided presentation format and verbal presentation techniques		
P12	explain the purpose of supporting documentation for design presentations.		

PLTS: This summary references where applicable in the pass criteria, in the square brackets, the elements of the personal, learning and thinking skills. It identifies opportunities for learners to demonstrate effective application of the referenced elements of the skills.

Key	IE – independent enquirers	RL – reflective learners	SM – self-managers
	CT – creative thinkers	TW – team workers	EP – effective participators

Essential guidance for tutors

Delivery

Delivery of this unit will involve practical assessments, written assessment, visits to suitable collections and will link to work experience placements.

Tutors are encouraged to use a wide range of techniques in delivering this unit and lectures, discussions, site visits, and supervised landscape design studies should all be used to stimulate and educate learners. Learners will be expected to carry out independent study, internet and/or library-based research, and reflect on their industry experience.

Learners must have access to data including detailed survey and site analysis information. Client consultation may be undertaken individually or as part of a small design team. At all times it is essential that tutors stress the importance of communication and presentation techniques, personal management and the need to undertake tasks in a professional manner.

Health and safety issues relating to accessing the landscape site or garden must be stressed and reinforced regularly. Tutors should consider integrating the delivery, private study and assessment for this unit with other relevant design units learners are taking as part of their programme of study.

Outline learning plan

The outline learning plan has been included in this unit as guidance and can be used in conjunction with the programme of suggested assignments.

The outline learning plan gives **an indication of the volume of learning it would take the average learner** to achieve the learning outcomes. It is **indicative and is one way of achieving the credit value.**

Learning time should address all learning (including assessment) relevant to the learning outcomes, regardless of where, when and how the learning has taken place.

Topic and suggested assignments/activities and/assessment
Evaluation of hard landscape materials and their uses.
Evaluation of soft landscape materials and their uses.
Client brief.
Elements of design.
Concept plans and their functions.
Assignment 1: **Evaluation of a Brief** (P1)
Development of concept plans.
Assignment 2: **Concept Presentation** (P2, P3, P5, P6, P7, M2)
Development of plan, illustrations and cross sectional drawing skills.
Evaluation of design (including garden visits).
Assignment 3: **Final Design** (P4, P8, P9.)
Communication and presentation skills and techniques.
Assignment 4 – Presentation Delivery and Visualisation (P10, P11, P12)
Communication and presentation skills and techniques.

Topic and suggested assignments/activities and/assessment
Assignment 5 – Formal Presentation (M1, D1)
Self-evaluation and reflection.
Independent research, development of own skills and drawing techniques.
Unit review.

Assessment

P1 requires learners to evaluate hard and soft landscape materials. They should demonstrate a clear understanding of the design function, together with the practicalities of planting requirements. For P2, learners must show that they understand the function and interaction between hard and soft features within their design, ensuring their use and positioning meet the needs of the site and the client brief. Evidence for P1 and P2 could be in the format of a report or garden design portfolio.

For P3, learners must be able to produce a range of concept plans to communicate initial ideas with the client. This stage of initial design ideas should draw on a variety of locations, situations and functions to challenge and develop learners. For P4, working from agreed site and client information, learners will enhance and develop concept drawings through to a completed solution. Evidence will be in the completed plans.

For P5, learners must understand how to present their garden design ideas using the most appropriate communication media. Use of a range of visual media should be encouraged, reviewed and selected for effectiveness. Tutors should identify the landscape and design brief, to ensure assessment is fair the complexity of the tasks should be the same for all learners.

For P6, learners must evaluate the research and graphical techniques involved in the production of a completed design concept proposal. Evidence may be linked with the assessment of P3. For P7, learners must describe how to evaluate the suitability of a concept plan against the client's requirements. Again, evidence may be linked with the assessment of P3 and P6 and where possible should take the form of a critical appraisal of a proposed design produced by the learner.

For P8 and P9, learners must be able to communicate ideas and concepts incorporating a range of techniques including cross section, elevations, projections, plans and perspective views, using a variety of drawing media.

For P10, P11 and P12, learners must be able to evaluate a range of presentation techniques to communicate garden design ideas to clients. Evidence could be as part of a garden design report.

For M1, learners are required to evaluate the design and setting of a selected garden and discuss examples of good and bad design practice. Tutors should identify the garden or agree it through discussion with learners. Evidence should be detailed and varied, showing good judgements that are well explained and backed up with real-life examples.

For M2, learners must produce a range of clear and well-illustrated concept plans to communicate design ideas to the client. Evidence could take the form of a pictorial presentation with notes (possibly using draft plans, storyboards or a PowerPoint type presentation) or a project or essay.

D1 requires learners to develop and present a completed design package which meets the needs of the client, is sympathetic with site constraints and uses a range of visual media. This may be of formal presentation using a range of visual techniques to fully communicate the proposed design. Information for this presentation may be gathered during the assessment of the pass criteria in order to form a cohesive package of investigation, evaluation and design.

Programme of suggested assignments

The following table shows a programme of suggested assignments that cover the pass, merit and distinction criteria in the grading grid. This is for guidance and it is recommended that centres either write their own assignments or adapt any Edexcel assignments to meet local needs and resources.

Criteria covered	Assignment title	Scenario	Assessment method
P1	Evaluation of a Brief	The learner is given one or more design scenarios to research and evaluate issues such as the selection of possible hard and soft materials, style and design framework based on client and site requirements.	Written report or portfolio of work.
P2, P3, P5, P6, P7, M2	Concept Presentation	Working from one or more of the previous scenarios, learners produce conceptual plans to explore and present design possibilities incorporating hard and soft features.	Plan drawings, sketches, storyboards as appropriate to design scenario.
P4, P8, P9	Final Design	Communicate information through the production of a completed design package, incorporating working drawings to address the needs and expectations of a specific design brief.	Range of presentation media, as appropriate to the design requirements.
P10, P11, P12	Presentation Delivery and Visualisation	Provide information on how landscape and garden design briefs can be presented to clients including drawing techniques, graphic, audio-visual, verbal techniques and supporting documentation.	Report.
M1, D1	Formal Presentation	Present and evaluate a final design solution using a range of media.	Formal presentation and evaluation.

Links to National Occupational Standards, other BTEC units, other BTEC qualifications and other relevant units and qualifications

This unit forms part of the BTEC Land-based sector suite. This unit has particular links with:

Level 2	Level 3
Setting Out From a Plan	CU85 Design landscape areas and specify components
Construct Landscape Foundations and Surfaces	Understand the Principles of Plant Science
	Understand the Principles of Soil Science
	Understand the Principles and Practices of Landscape and Garden Design
	Understand Historical Influences on the Development of Gardens

Essential resources

Learners will need access to appropriate landscape sites or gardens to undertake the evaluation aspect of the assignments. Learners will also require access to additional resources such as computers, drawing rooms and equipment. The design scenario may be within the centre or an actual landscape/garden design project. Where possible, a real client should be used to provide realism to the client-designer interaction.

Employer engagement and vocational contexts

This unit focuses on the elements and principles of landscape and garden design, including client consultation and interaction within a garden or landscape design presentation. It will also give learners the knowledge and skills needed to undertake these activities with a professional approach. Centres are encouraged to create and develop links with local design and build landscape contractors, architects and garden designers, via guest lectures, workshops or visits, so learners gain an industrial perspective of this work.

Indicative reading for learners

Textbooks

Alexander R and Batstone K — *A Handbook for Garden Designers* (Cassell Illustrated, 2006) ISBN 978-1844033708

Brickell C — *Royal Horticultural Society Gardeners' Encyclopedia of Plants and Flowers* (Dorling Kindersley Publishers, 2006) ISBN 1405314540

Brookes J — *Garden Design* (Dorling Kindersley, 2001) ISBN 978-0751309812

Littlewood M — *Landscape Detailing Volume 1: Enclosures* (Architectural Press, 1993) ISBN 978-0750613040

Littlewood M — *Landscape Detailing Volume 2: Surfaces* (Architectural Press, 1993) ISBN 978-0750613033

Littlewood M — *Landscape Detailing Volume 3: Structures* (Architectural Press, 2001) ISBN 978-0750623209

Littlewood M — *Landscape Detailing Volume 4: Water* (Architectural Press, 2005) ISBN 978-075063829X

Reid G — *Landscape Graphics* (Watson-Guptill Publications Inc, 2002) ISBN 978-0823073337

Williams R — *The Garden Planner* (Frances Lincoln Publishers, 1998) ISBN 978-0711212183

Wilson A —*The Book of Garden Plans* (Mitchell Beazley, 2004) ISBN 978-078931 1948

Journals

BBC Gardens Illustrated

Websites

www.bbc.co.uk/gardening	BBC Gardening
www.rhs.org.uk	Royal Horticultural Society

Delivery of personal, learning and thinking skills (PLTS)

The following table identifies the PLTS opportunities that have been included within the assessment criteria of this unit:

Skill	When learners are ...
Independent enquirers	researching hard and soft landscape materials evaluating proposed designs and solutions
Creative thinkers	producing concept plans and final designs evaluating and developing concept plans further
Reflective learners	evaluating design concepts and communicating their personal reflections
Self-managers	showing initiative and imagination with the solutions for a design scenario building and maintaining relationships with clients.

Although PLTS opportunities are identified within this unit as an inherent part of the assessment criteria, there are further opportunities to develop a range of PLTS through various approaches to teaching and learning.

Skill	When learners are ...
Independent enquirers	problem solving while meeting the needs of the client and site constraints
Creative thinkers	connecting their own and others' ideas in inventive ways through the design process
Reflective learners	reviewing progress and feedback from conceptual presentation and implementing them within the final design
Team workers	providing constructive support and feedback to others within discussions concerning conceptual ideas
Self-managers	organising time and resources to achieve a goal
Effective participators	presenting a persuasive case for action through the promotion of design solutions.

Functional Skills — Level 2

Skill	When learners are ...
ICT – Use ICT systems	
Select, interact with and use ICT systems independently for a complex task to meet a variety of needs	using the internet to research information on hard and soft landscape materials looking at a range of design solutions used by accredited designers using IT systems to present concepts and design solutions
Use ICT to effectively plan work and evaluate the effectiveness of the ICT system they have used	
Manage information storage to enable efficient retrieval	
Follow and understand the need for safety and security practices	
Troubleshoot	
ICT – Find and select information	
Select and use a variety of sources of information independently for a complex task	
Access, search for, select and use ICT-based information and evaluate its fitness for purpose	
ICT – Develop, present and communicate information	
Enter, develop and format information independently to suit its meaning and purpose including: • text and tables • images • numbers • records	
Bring together information to suit content and purpose	
Present information in ways that are fit for purpose and audience	
Evaluate the selection and use of ICT tools and facilities used to present information	
Select and use ICT to communicate and exchange information safely, responsibly and effectively including storage of messages and contact lists	

Skill	When learners are ...
Mathematics	
Understand routine and non-routine problems in a wide range of familiar and unfamiliar contexts and situations	plotting drawings from linear site survey data and interpreting numerical data, including changes in scales within cross sections
Identify the situation or problem and the mathematical methods needed to tackle it	
Select and apply a range of skills to find solutions	
Use appropriate checking procedures and evaluate their effectiveness at each stage	
Interpret and communicate solutions to practical problems in familiar and unfamiliar routine contexts and situations	
Draw conclusions and provide mathematical justifications	
English	
Speaking and listening – make a range of contributions to discussions and make effective presentations in a wide range of contexts	participating in client interaction and discussion to establish the concept design brief and present final work.
Reading – compare, select, read and understand texts and use them to gather information, ideas, arguments and opinions	
Writing – write documents, including extended writing pieces, communicating information, ideas and opinions, effectively and persuasively	