Correlation of

***Landscape Design, Installation, and Management,* Christopher Hart, R. Lee Ivy**

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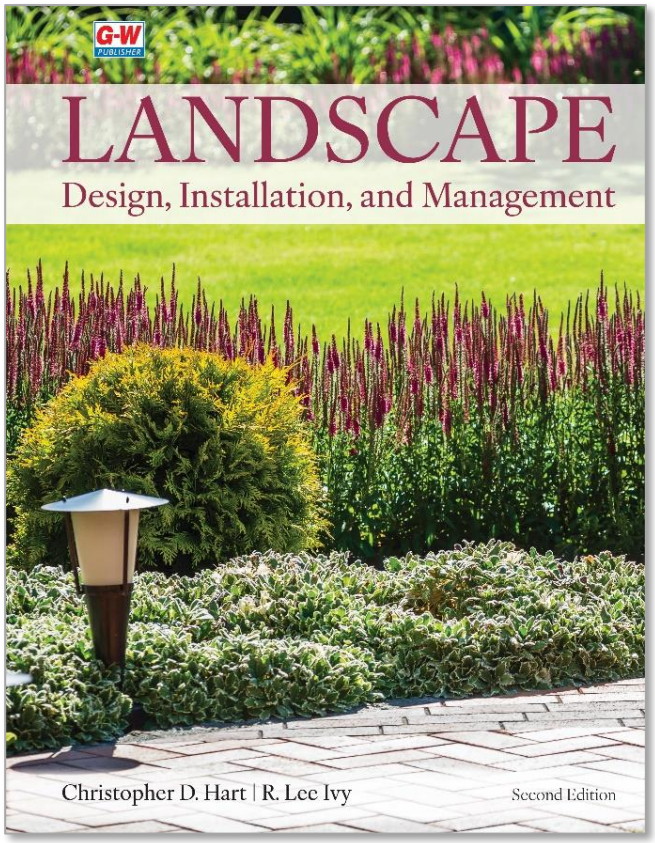
to

NOCTI Job Ready Credential Blueprint for Horticulture - Landscaping

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The correlation chart below lists the Standards for NOCTI's Horticulture – Landscaping exam in the left column. Corresponding content from *Landscape Design, Installation, and Management* that can be used by a student to help achieve the standard is listed in the right column.



NOCTI Job-Ready Credential Blueprint for Horticulture - Landscaping	
Specific Standards and Competencies Included in this Assessment	**Textbook Pages**
Related Activity Abbreviations: Critical Thinking **CT**; Suggested Activities **SA**	
N-HL01 General Knowledge	
N-HL02 Describe knowledge of plant characteristics.	Plant Nomenclature pp212-213 Scientific Classification pp213-217 Plant Parts pp219-224 Plant Production pp238-247

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NOCTI Job-Ready Credential Blueprint for Horticulture - Landscaping	
Specific Standards and Competencies Included in this Assessment	**Textbook Pages**
N-HL03 Identify parts of a plant and their purpose/function.	Plant Parts pp219-224
N-HL04 Demonstrate knowledge of plant classification/taxonomy.	Chapter 9 Plant Taxonomy and Physiology pp211-231 Plant Nomenclature pp212-213 Scientific Classification pp213-217 TC #2, #3, #4, p230
N-HL05 Determine soil pH and possible modification.	Soil pH p228
N-HL06 Describe career opportunities and professional development.	Plant Production pp5-8 Micropropagation p6 Sod Farms p8 Research and Education pp8-10 Landscaping Suppliers p10 Service Providers pp10-11 Landscape Design pp11-14 Landscaping Installation pp14-15 Landscape Maintenance pp15-17 Retailers p17 Succeeding in the Workplace pp36-39 Communicating in the Workplace pp39-41 Interpersonal Skills pp41-45 **Career Connections:** Roger Phelps, Corporate Communications Manager, STIHL Inc. p4 Jenn Myers, National Association of Landscape Professionals p46 Leslie Herndon, President of Greenscape, Inc. p70 Brock Holtzclaw, Arborist p100 Preston Montague, Naturalist p132 Tracy Sides, Landvision Designs Inc. p151 Edward Furner, Premier Service Director for Mariani Landscape p178 Dana Massey, President, Plantworks Nursery, Inc. p198 John Hoffman, Nurseryman p18 Brie Arthur, Garden Communicator p246 Dr. Robert Lyons, Educator, Director, Volunteer p287 (continued)

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NOCTI Job-Ready Credential Blueprint for Horticulture - Landscaping	
Specific Standards and Competencies Included in this Assessment	**Textbook Pages**
N-HL06 Describe career opportunities and professional development.	(continued) Judson Mills, Super-Sod General Manager p11 Dr. Robert Lyons, Educator, Director, Volunteer p287 Judson Mills, Super-Sod General Manager p11 Patrick Freeman, SiteOne Landscape Supply p340 Mason Dyer, Territory Manager, Belgard Pavers and Landscapes p400 Brock Lavrack, Brightview Landscape Services p425 Hunter Casey, Casey Nursery Inc. p442 Brigitte Orrick, The Davey Tree Expert Company p454 Joshua Richardson, CPP, Landscape Designer, Ruppert Landscape, Raleigh/Durham, NC p481 Al Newsome, Entrepreneur and Art Lover p504 Brice Conner, Ocean Forest Golf Club p526 Dr. Joshua Pool, Chief Operations Officer, Timberline Landscaping p560 Colby Griffin, Extension Agent p591
N-HL07 Identify plant nutrient requirements.	Plant Nutrition pp227-228 TC #5-7, p230 SA #4-5, p231
N-HL08 Identify types and characteristics of soils and soil components.	Soil Types p203 TC #2-3, p137 SA #9, p533 SA #1-2, p563
N-HL09 Identify/describe types of fertilizers.	Substrates pp187-190 Plant Nutrition pp227-228 Management Plans pp537-543 fertilizer, p538 Organic Fertilizers pp539-540 Inorganic Fertilizers pp540-541 Quick-Release Fertilizers pp541-542 Slow-Release Fertilizers, p542 Controlled-Release Fertilizers p542 Compost and Fertilizing p556

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NOCTI Job-Ready Credential Blueprint for Horticulture - Landscaping	
Specific Standards and Competencies Included in this Assessment	**Textbook Pages**
N-HL10 List landscaping safety standards.	Maintaining a Safe Workplace pp53-55 First Aid pp59-60 Workplace Safety Hazards pp60-65 Plants pp60-61 Animals pp61-62 Weather Conditions pp62-64 Shop Safety pp65-68 Safety Data Sheets pp65-66 Safety Color-Coding p66 Chemicals and Liquid Fuels pp66-68 Job Site and Vehicle Safety pp68-69 High-Visibility Clothing p69 Work Area Barriers pp69-70 Vehicle Safety pp70-73 High Hazard Areas p73
N-HL11 Define landscaping terminology.	Glossary p618
N-HL12 Pest and Disease Management.	
N-HL13 Identify and characterize pests, weed, and disease.	Identifying the Plant and Pest p567 Types of Pests pp573-577 Plant Diseases pp577-578 Pests, Disorders, & Beneficial Insects Identification pp596-603 SA #3, p209 TC #6, p230 SA #7, p254 SA #6, p291
N-HL14 Demonstrate knowledge of pest management safety.	Chapter 22 Pest Management pp565-603 Pesticide Labels pp583-586 Pesticide Application pp586-589 Storage and Disposal p589 TC #1, p594 SA #1, p595
N-HL15 Demonstrate methods of pest, weeds, and disease control, including IPM.	Chapter 22 Pest Management pp565-603 Using IPM pp566-568 IPM Control Methods pp568-573 SA #3, p209 SA #2, p595

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NOCTI Job-Ready Credential Blueprint for Horticulture - Landscaping	
Specific Standards and Competencies Included in this Assessment	**Textbook Pages**
N-HL16 Fundamentals of Irrigation	
N-HL17 Describe characteristics of irrigation systems.	Irrigation System Components pp350-354 Irrigation Systems p354 CT #1, p374 SA #1-9, pp374-375
N-HL18 Describe various water control devices.	Water Movement and Pressure p349 Irrigation System Components pp350-354 Controllers pp352-353 SA #6, p137 SA #3, p374
N-HL19 Identify types of watering techniques.	Chapter 14 Irrigation Design, Installation, and Maintenance pp345-375 Microirrigation p200 Watering p527, p544
N-HL20 Basic Nursery/Greenhouse Skills	Plant Production pp5-8 Chapter 8 Plant Production pp185-209 Substrates pp187-191 Workplace Readiness Skills: Ornamental Plant Production p190 Plant Propagation pp191-194 American Standard for Nursery Stock pp196-197 Nursery Plant Production pp197-203 Container Production pp197-199 Pot-in-Pot Production pp199-200 Field Production pp200-201 Balled-and-Burlapped p201 Bare Root p201 Transporting Nursery Stock pp202-203 Greenhouse Plant Production pp195-197 American Standard for Nursery Stock pp196-197 SA #3, p595 SA #7, p155
N-HL21 Describe methods of propagation.	Plant Propagation pp191-194 CT #1-3, p209
N-HL22 Explain environmental management of greenhouses.	Greenhouse Production p7 Greenhouse Plant Production pp195-197
N-HL23 Identify growing structures.	Greenhouse Plant Production pp195-197

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NOCTI Job-Ready Credential Blueprint for Horticulture - Landscaping	
Specific Standards and Competencies Included in this Assessment	**Textbook Pages**
N-HL24 Horticulture Business and Retailing	
N-HL25 Compute cost of product.	Budgets and Costs pp446-451 Budgets and Costs pp468-477 Quotes and Bids pp477-482 SA #2, p105 SA #1, p155 SA #4, p315 SA #2, p343 SA #2, p374 SA #3-4, p403 SA #4, p485 SA #2, p507 SA #6, p533 SA #3, p563
N-HL26 Determine mark-up and profit.	Income, Profit, and Expenses p448 Profits and Profit Margins pp466-468 SA #4, p485
N-HL27 Measure for quantity needed.	Measuring Devices pp82-84 SA #4, p183 SA #2, p254 SA #4, p254 SA #1, p314 SA #2, p314 MC 03, p391 MC 04, p391 SA #4, p403 SA #4, p429 SA #2, p485 SA #4, p533
N-HL28 Demonstrate sales techniques.	Using Demographics pp441-442 Advertising pp451-458 SA #1, p137 SA #2, p429 TC #1-2, p485 SA #1, p507 SA #5, p507
N-HL29 Maintain business records.	Recordkeeping p81 Inventory p81 SA #7, p457
N-HL30 Landscape Design	
N-HL31 Identify landscape areas (private, public, service areas).	Outdoor Rooms pp158-161 Property Size, Layout, and Shape pp161-163 SA #1, p183

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NOCTI Job-Ready Credential Blueprint for Horticulture - Landscaping	
Specific Standards and Competencies Included in this Assessment	**Textbook Pages**
N-HL32 Describe material selection and methods of planting.	Choosing Plant Materials p126 Plant Materials p331 Planting Trees and Shrubs p519 Planting Bedding Plants and Vines p524 SA #1, p155 SA #8, p209 TC #2, p290 TC #2, p314 SA #1, p429
N-HL33 Compute square footage, area, and volume.	Collecting Measurements p119 STEM Connection: Measurement Conversions p299 Measuring Water Volume 334 Material Calculations p391 Calculating Square Footage and Perimeter p465 Calculating Square Footage of Odd Shapes p467 Calculating the Volume of Landscape Materials p513 Multiple Choice 1-7, p391 SA #2, #7, p343 SA #3, #4, p403 SA #1, p429 SA #3, p533
N-HL34 Landscape Installation and Construction	
N-HL35 Identify tools and equipment.	Chapter 4 Tools and Equipment pp79-115 Nursery and Landscaping Equipment and Supplies Identification (illustrated glossary) pp106-115 TC #1, #4, p105 SA #1-3, #5, p105
N-HL36 Read blueprints and lay out site plans.	Chapter 16 Creating the Design pp405-429 SA #1, p155 SA #1-2, p254 SA #1-2, #5-8, p429 TC #2, p429 TC #3, p532
N-HL37 Construct water features and raised beds.	Chapter 13 Landscape Lighting and Water Features pp317-343 Power Systems pp318-337 Constructing a Water Feature pp334-338 Meeting the Client's Needs p499 SA #1, p155 SA #1, p231 SA #4, p254 SA #3, 5-6, p343 SA #6, p429 SA #3-5, p533
N-HL38 Construct decks, patios, and walkways.	Types of Hardscapes pp378-381 Multiple Choice #1-7, p391 SA #1-4, p403

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NOCTI Job-Ready Credential Blueprint for Horticulture - Landscaping	
Specific Standards and Competencies Included in this Assessment	**Textbook Pages**
N-HL39 Transplant various types of landscape materials.	Transplants and Soil Types pp203-204 SA #4, p155 SA #1, p231 TC #1-2, p532 SA #2, p533 TC #4, p563
N-HL40 Landscape and Turf Maintenance	
N-HL41 Describe maintenance of equipment.	Chapter 4 Tools and Equipment pp79-115 Maintenance p81 TC #1, p105 SA #1, #5, p105
N-HL42 Inspect and operate power equipment.	Landscaping Power Equipment pp96-99 Basic Maintenance for Power Equipment p99 SA #2, #5, p105 TC #1, #4, p105
N-HL43 Compare types and characteristics of grasses.	Cool-Season Turfgrasses pp275-280 Warm-Season Turfgrasses pp280-284
N-HL44 List types of mowers and their uses.	Mowers pp97-99 TC #2-3, p105
N-HL45 Identify golf course features and maintenance.	Turfgrass Maintenance p16 Athletic Fields and Golf Courses p274 SA #5, p291
N-HL46 Arboriculture.	
N-HL47 Identify tree growth characteristics.	Trees pp234-238 Shrubs pp238-240
N-HL48 Explain treatment of tree disorders and injuries.	Plant Diseases pp577-578
N-HL49 Explain proper pruning techniques.	Pruning, Grafting, and Budding Tools pp92-93 Pruning pp547-554 TC #1-4, p563 SA #4, #6 p563
PERFORMANCE ASSESSMENTS	
N-HL50 Identify and Control Pests: Participants will inspect plants or photographs, accurately identify diseases and insect damage, consult reference guide and complete form.	Chapter 22 Pest Management pp565-603 Pests, Disorders, and Beneficial Insects Identification (illustrated glossary) pp596-603 SA #9, p595
N-HL51 Identify Equipment Features: Participants will identify features on a 4-cycle engine and 2-cycle engine.	Chapter 4 Tools and Equipment pp79-116 SA #5, p403

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Specific Standards and Competencies Included in this Assessment	**Textbook Pages**
N-HL52 Plant a Container-Grown Shrub: Participants will dig a hole; prepare backfill, plant the shrub, and backfill the hole.	Chapter 8 Plant Production pp185-209 SA #4, p155 SA #1, p231 TC #1-2, p532 SA #2, p533 TC #4, p563
N-HL53 Prune a Tree and an Evergreen Shrub: Participants will mark cuts, safely use a saw and pruning shears, and make quality cuts with both.	Pruning, Grafting, and Budding Tools pp92-93 Pruning pp547-554
N-HL54 Stake out a Site-Plan—Entrance Walkway: Participants will choose a measuring device and plant stakes, layout an irrigation line, place the plant stakes and sidewalk and front entrance.	Chapter 5 Site Evaluation and Plant Selection pp117-137 Measuring Devices pp82-84 Chapter 14 Irrigation Design, Installation, and Maintenance pp345-375
SAMPLE JOB	
N-HL55 Identify and Control Pests: The participant will go to the designated area and inspect the host plants for pest problems, identify the plant and pest problems from each specimen, consult approved pest control recommendations or production manual for appropriate method of control, complete the chart that is provided and indicate diagnosis, method of treatment, and rate of application.	Chapter 22 Pest Management pp565-603 Pests, Disorders, and Beneficial Insects Identification (illustrated glossary) pp596-603 SA #9, p595

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