

**UNIVERSITY OF GUELPH, RIDGETOWN CAMPUS
HORTICULTURE DIPLOMA SEMESTER 1 (FALL) COURSE DESCRIPTION**

DHRT*1000 LANDSCAPE MANAGEMENT (2-3) (Core)

The use of hand tools, power machinery, and traditional and contemporary methods in the on-going maintenance of landscape installations will be presented, along with proper equipment operation and safety.

DHRT*1050 PLANT IDENTIFICATION I (2-3) (Core)

This course provides an introduction to the identification of common landscape plants. Students will learn to identify plants by sight through recognition of subtle differences. Botanical names will be taught. Growing requirements, physical features, ornamental characteristics and potential landscape use will be discussed.

DAGR*1200 APPLIED PLANT SCIENCE (3-2) (Core)

This course covers the basic structure and function of plants and the major functions involved in growth and reproduction as they relate to the production of plants. Topics to be discussed will include: plant processes such as photosynthesis, respiration, transpiration, nutrient uptake and reproduction, basic genetic principles, basic chemistry and the relationship and importance of plant science to the agricultural and horticultural industry.

DAGR*1300 SOIL PRINCIPLES (3-2) (Core)

This course includes origin and classification of soils, identification and importance of major soil types, identification of primary and secondary nutrients and how they are supplied, composition of soil including minerals, water, air, organic matter and biological organisms and how they interact and the importance of soil as a resource.

DAGR*1600 APPLIED MATHEMATICS (3-2) (Core)

This course is designed to augment mathematics skills necessary to compete in today's business environments. Typical applications are chemical rate conversions, solutions and mixtures, elementary algebra and financial topics. The aim is to teach how to solve actual mathematical problems encountered in the day-to-day operation of agricultural/horticultural business.

DAGR*1620 COMPUTER APPLICATIONS - Part I (1-2) (Core)

Students will become acquainted with a computer and its operating systems and applications, such as word processing and spreadsheets. Students will also learn about basic Internet access hardware, such as modems, and how to use computer communications applications such as electronic mail, and World Wide Web browsers to access information relevant to the agricultural and horticultural industries.

DAGR*1720 COMMUNICATION SKILLS - Part I (1-1) (Core)

Students will develop their command of language skills and learn and/or practice practical applications such as letter, memo, and report writing, resume writing and revision. Students will also learn how to present persuasive and informative oral presentations and how to incorporate audio-visual aids in effective communications.

UNIVERSITY OF GUELPH, RIDGETOWN CAMPUS HORTICULTURE DIPLOMA SEMESTER 2 (WINTER) COURSE DESCRIPTIONS

DHRT*2100 LANDSCAPE DESIGN I (2-4) (Core)

Students will study the principles of landscape design and learn how to integrate different design styles, different types of landscape materials, structures and plants to create an attractive residential living environment. Students will learn how to identify the design requirements of a site, choose appropriate plants or structures, arrange landscape components and draw a plan of the proposed layout. Introductory drafting techniques will be practiced.

DHRT*2200 PLANT PROPAGATION (2-2) (Core)

This course covers the principles and practices of propagation for horticultural plants. Sexual (seed) propagation to include seed maturation, dormancy and seed germination; vegetative (asexual) propagation, including division, layering, budding, grafting and tissue culture are also discussed.

DAGR*2110 BUSINESS ACCOUNTING (2-2) (Core)

Students learn to prepare the financial statements used in business. An understanding of the interrelationship of the balance sheet, income statement, cash flow and statement of change in financial position will be emphasized. Lab sessions will introduce computer accounting software.

DAGR*2620 COMPUTER APPLICATIONS - Part II (1-1) (Core)

Students will become acquainted with a computer and its operating systems and applications, such as word processing and spreadsheets. Students will also learn about basic Internet access hardware, such as modems, and how to use computer communications applications such as electronic mail, and World Wide Web browsers to access information relevant to the agricultural and horticultural industries.

DAGR*2720 COMMUNICATION SKILLS - Part II (1-2) (Core)

Students will develop their command of language skills and learn and/or practice practical applications such as letter, memo, and report writing, resume writing and revision. Students will also learn how to present persuasive and informative oral presentations and how to incorporate audio-visual aids in effective communications.

DHRT*2090 INTRODUCTION TO LANDSCAPE CONSTRUCTION (2-3)

Landscape construction materials, and combinations of materials commonly used in landscape structures, will be examined. Construction methods and common practices for a variety of landscape projects will be described and demonstrated. Use of the survey level and rod for taking elevations and for project layout, will be demonstrated. Information given will be suitable for passing pertinent Certified Horticultural Technician examinations.

DHRT*2250 HORTICULTURE EQUIPMENT MANAGEMENT (2-2)

This course examines common equipment used for horticulture practices. The student will develop the skills and knowledge to be able to maintain, adjust and repair equipment used in horticulture. A focus on shop practices and use of shop tools will be covered. This course will emphasize safety in all aspects of operation and use of equipment.

DHRT*4010 FLORAL DESIGN AND RETAILING (0-4) Enrolment Limit of 12 Students

The basic requirements of a floral designer will be studied, including the principles and elements of design, colour theory, design styles and techniques, in-shop procedures and sales skills. There will be opportunity to practise arranging both fresh and permanent flowers. Proper care, handling and display of fresh-cut flowers as well as foliage and flowering plants are also included in this course. **Additional course fee of \$200.00 will be charged for materials. Senior students will have first priority.**

DHRT*4300 ARBORICULTURE (2-3) Enrolment Limit of 16 Students

This course will provide students with the opportunities to learn both the principles and the skills necessary to manage and care for trees in the landscape. Case studies will be used to help students develop the skills necessary to assess tree problems.

DAGR*3130 SALES AND SALES MANAGEMENT (2-1)

An overview of personal selling in today's business environment with particular emphasis on skills needed to present an effective sales presentation. Buyer motivation and behaviour; managing time and sales territories will be discussed.

UNIVERSITY OF GUELPH, RIDGETOWN CAMPUS
HORTICULTURE DIPLOMA SEMESTER 3 (FALL) COURSE DESCRIPTIONS

DAGR*3100 BUSINESS MANAGEMENT (1-4) (Core)

This course entails an examination of management decision-making process using financial statements, budgets, business records, computerized enterprise budget programs, investment analysis, farm and contract law, and income tax regulations. This course is the introduction to either Business Project or Farm Project that is taught in Semester 4.

DHRT*3050 PLANT IDENTIFICATION II (2-3) (Core)

This is an advanced course continuing the identification of landscape plants. Growing requirements, physical approximate size at maturity and ornamental characteristics will be discussed for each plant. Less common taxa and additional cultivars will be highlighted.

DHRT*2000 GREENHOUSE MANAGEMENT (3-2) (Core)

Students will learn the basics of greenhouse design and use. Topics such as structures, ventilation, heating, supplemental lighting, relative humidity, irrigation, fertility management and CO₂ enrichment will be included. Management and cultural principles of commercial production of various horticultural crops in greenhouses will be used to illustrate management strategies.

DHRT*3100 LANDSCAPE DESIGN II (2-3)

Students will learn how to read landscape plans and blueprints, and interpret them for layout, costing, estimating and installation. Landscape planning for parks, golf courses, commercial, institutional and industrial sites will be examined.

DHRT*3120 APPLIED LANDSCAPE CONSTRUCTION (2-3)

Skills in applied construction techniques and safe work habits will be practiced and learned. Structures such as walls, paved areas, fences, lighting, water feature, and planting areas will be laid out and installed. Construction practices including base preparation, installation, backfilling and completion/finishing will be explored under supervision of trained landscape design-build experts. Learned skills will be evaluated at the Certified Horticultural Technician (CHT) level.

DHRT*3150 NURSERY MANAGEMENT (3-2)

This course covers the setup and organization of a horticultural nursery and the methods of production for field and container-grown landscape nursery stock including cultural management and merchandising in wholesale and retail operations.

DHRT*3170 HORTICULTURAL WEED SCIENCE (3-0)

Identification of common weeds in horticulture, methods of weed control, herbicide mode of action and basis of selectivity are the primary areas included in this course.

DHRT*4100 COMPUTER ASSISTED DESIGN (3-2) Limit: 12 Students

Landscape designs and visualizations will be prepared with computer technology, using residential landscape projects. Drafting, design, visualization or modeling software will be taught and used to create plans, views, pictures and/or models.

DAGR*3110 BUSINESS FINANCE (3-0)

Students will learn the types of business organizations, methods of financing long and short-term capital requirements, taxation implications, dividend policies, budgeting and financial reorganization.

DAGR*3120 BUSINESS MARKETING (3-0)

An introduction to consumer marketing concepts including the people and the activities involved in the distribution of goods and services from the producer to the consumer. Specific topics include choosing effective channels of distribution, developing markets.

UNIVERSITY OF GUELPH, RIDGETOWN CAMPUS HORTICULTURE DIPLOMA SEMESTER 4 (WINTER) COURSE DESCRIPTIONS

DAGR*4600 HUMAN RESOURCE MANAGEMENT (3-2) (Core)

Students will learn the theoretical and practical skills of management and interacting with people. Topics will include recruiting, supervising, motivation, training employees, effective listening, dealing with difficult people, group dynamics and leadership skills.

DAGR*4610 BUSINESS PROJECT (2-3) (Core)

Students will identify a viable product or service, and will undertake a comprehensive study of the technical and economic aspects of a business designed to sell that product. Students will acquire basic information about the product, define their business and develop a business plan.

OR

DAGR*4620 FARM PROJECT (2-3) (Core)

Students will undertake a comprehensive study of the technology, operation and economics of an agricultural production enterprise. The students will be responsible for acquiring basic information about the enterprise, analyzing its strengths and weaknesses and developing a management plan.

DHRT*4000 ORNAMENTAL PLANT PROTECTION (3-2) (Core)

This course is a study of the biology and control of insects and diseases of nursery, landscape, turf grass and greenhouse crops. Approaches to integrated pest management are incorporated into control methods.

DHRT*4050 CERTIFICATION & SAFETY (3-2) (Core)

Students will learn the necessary information required to write the Land Class examinations which are a legal requirement for anyone wishing to apply or sell pesticide products in Ontario. For interested student, licensing exams can be arranged with licensing authorities upon payment of relevant fees. Students will also be introduced to Federal and Provincial legislation governing worker health and safety in the workplace. The Occupational Health and Safety Act, in particular WHMIS, CPR and First Aid will be covered.

DHRT*3300 GREENHOUSE CROP PRODUCTION (3-2) Pre-requisite: DHRT*2000 Greenhouse Management
Production practices of selected greenhouse vegetable crops, pot crops and cut flower crops will be demonstrated. Students will be responsible for maintaining all aspects of the greenhouse environment. Producing crops such as Easter lilies and hydrangeas as well as growing the bedding plant crop for use on campus make up a major portion of this course.

DHRT*4010 FLORAL DESIGN AND RETAILING (0-4) Enrolment Limit of 12 Students

The basic requirements of a floral designer will be studied, including the principles and elements of design, colour theory, design styles and techniques, in-shop procedures and sales skills. There will be opportunity to practice arranging both fresh and permanent flowers. Proper care, handling and display of fresh-cut flowers as well as foliage and flowering plants are also included in this course. **Additional course fee of \$200.00 will be charged for materials.**

DHRT*4170 ADVANCED CAD GRAPHICS (2-3) Pre-requisite: DHRT*4100 Computer Assisted Design

Students will develop advanced skills in CAD operations, and in combinations of computer and hand rendering techniques. Real-life projects will be incorporated into the course, with client requirements used as base criteria for design development. Styles, principles, and elements of design learned in previous courses will be applied through CAD to the efficient creation of accurate and complete landscape plans and drawings. The development of job-ready skills for use in the small design office will be augmented by design alternative and computerized cost estimation comparisons.

DHRT*4310 TREE CARE TECHNIQUES (1-3) Enrolment Limit of 10 Students

This practical course is designed to lead students through the ISA Tree Climber's Guide, and to help develop knowledge, skills, and techniques, in preparing for the ISA Certified Tree Worker/Climber Specialist exam. This course is designed for students who have completed DHRT*4300 Arboriculture, and would like to gain more experience working in trees. Practical lab time will mostly be spent caring for the trees of the J.J. Neilson Arboretum, on the College campus.