

# SUSTAINABLE LANDSCAPE HORTICULTURE

# Program Number 10-001-4 Associate Degree in Applied Science • Five Terms

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# **ABOUT THE PROGRAM**

Sustainable Landscape Horticulture technicians can make a living in a wide variety of ways. This is truly a "green" career. You may work in the disciplines of plant propagation and production for a greenhouse or tree nursery-nurturing plants to be used in landscaping, food production, or sold in retail garden centers. You may also work on landscape maintenance or landscape construction crews for landscape contractors, lawn care service companies, botanical gardens, municipal park departments, golf courses, civil engineering firms, and natural resource management agencies. Work duties are typically outdoors and very hands on. With time and experience, management and consulting opportunities within the field are possible.

### **PROGRAM OUTCOMES**

- · Analyze growing media.
- Diagnose plant health.
- Communicate as a horticulture professional.
- Apply design principles.
- Provide horticulture maintenance.
- Apply the principles of plant science.

### CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

LTC credits transfer to over 30 universities. For more information visit gotoltc.edu/ future-students/transfer.

#### **PROGRAM ADMISSIONS STEPS**

- Work with Career Coach to:
- Submit application and \$30 fee.
- Submit official transcripts (high school and other colleges).

## **ENROLLMENT PROCESS**

After you are admitted to your program you will meet with your Advisor to plan your first semester schedule, review your entire plan of study, discuss placement assessment results and complete any additional enrollment requirements. Enrollment requirements for this program's courses include:

- Complete an assessment for placement (Accuplacer or ACT).
- Complete Functional Abilities Statement of Understanding form.
- Meet with your program's advisor.

### **APPROXIMATE COSTS**

- \$140 per credit (resident)
- Other fees vary by program (books, supplies, materials, tools, uniforms, health related exams, etc.) Visit gotoltc.edu/financial-aid/tuition-and-fees for details.

#### **FINANCIAL AID**

This program is eligible for financial aid. Visit gotoltc.edu/Financial-Aid or talk with your Career Coach about how to apply for aid.

#### **SPECIAL NOTE**

To parallel the work cycle of this profession and to provide a potent curriculum including full life cycles of plants and seasonal application of knowledge and skills, this program's instruction meets throughout the summer months and completes in 1 1/2 years.

To avoid multi-term overlap conflicts, students are asked to enroll in the specific courses as planned in your schedule.

#### CONTACT

LTC Career Coach 920.693.1162 · CareerCoach@gotoltc.edu



Catalog No. Class Title C		Credit(s)
	Term 1 - Fall	
10001110	Horticulture Introduction	3
10001114	Computer Applications for Technicians	s 1
10001127	Landscape Design Studio Introduction	า 1
10001153	Botany and Soil Science	3
10001159	Plants 1	2
10001180	Landscape Installation 1	2
10001109	Landscape Installation 2	2

### Term 2 - Winter/Spring

10001128	Computer Aided Design for Sustainability	2
10001130	Greenhouse & Nursery Production	2
10801196	Oral/Interpersonal Communications	3
10806112	Principles of Sustainability	3
10804123	Math with Business Applications	3
10809198	Introduction to Psychology	3
		16

# Term 3 - Late Spring/Summer

10001158	Plants 2	2
10001170	Facilities Maintenance/Installation	1
10001172	Landscape Maintenance	3
10001147	Advanced Greenhouse & Nursery Mgmt	3
10001129	Site Inventory and Analysis	2
10001140	Advanced Concepts in Horticulture	3
10809122	Introduction to American Government	3
		17

### Term 4 - Fall

0001131	Technology in Horticulture and Landscape	2
0001141	Plant Communities of Wisconsin	2
0001143	Stormwater Structures & Management	2
0001144	Sustainable Horticulture Capstone	3
	Experience	
0001146	Sustainable Landscape Management	2
0801197	Technical Reporting	3
0809195	Economics	3
		17

**TOTAL 64** 

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Curriculum and Program Acceptance requirements are subject to change. Program start dates vary; check with your advisor for details.



ADVANCED CONCEPTS IN HORTICULTURE...prepares the student to analyze and implement progressive methods and techniques at the forefront of the horticulture field, such as permaculture, hydroponics, aquaponics, aeroponics, vertical gardening, growing season extension, biodynamic farming, and agroforestry. COREQUISITE: 10001172 Landscape Maintenance or CONDITION: 190013 Management of Sustainable Landscapes admissions requirements met

ADVANCED GREENHOUSE AND NURSERY MANAGEMENT...provides the student with the skills and experiences to choose, obtain, determine costs/budgets, propagate, grow, maintain, and sell a variety of plants and supplies in a greenhouse and nursery context. Students will choose an additional greenhouse/nursery topic for advanced study and application. PREREQUISITE: 10001130 Greenhouse and Nursery Production

**BOTANY AND SOIL SCIENCE**...addresses the unique interactions of healthy plants & soils; examines the physical, chemical, organic & biological characteristics of soils and how they impact the structure & functions of plants. COREQUISITE: 10001110 Horticulture-Introduction

COMPUTER AIDED DESIGN FOR SUSTAINABILITY...will use computer and computer aided design software as tools for design communication; learners will be introduced to the fundamental components of CAD in landscape design. Property lines, topography, site planning, hardscapes, planting plans, andsection view graphics will be covered. PREREQUISITES: 10001114 Computer Applications for Technicians and 10001127 Landscape Design Studio Intro

**COMPUTER APPLICATIONS FOR TECHNICIANS**...provides the learner with basics of the current Windows operating system, terminology, file management, Microsoft Word, Microsoft Excel, and horticulture engineering applications utilizing appropriate computer drafting software.

ECONOMICS...provides the participant with an overview of how a market-oriented economic system operates, and it surveys the factors which influence national economic policy. Basic concepts and analyses are illustrated by reference to a variety of contemporary problems and public policy issues. Concepts include scarcity, resources, alternative economic systems. growth, supply and demand, monetary and fiscal policy, inflation, unemployment and global economic issues. COREQUISITE: 10838105 Intro Readingand Study Skills or equivalent

FACILITIES MAINTENANCE/INSTALLATION...prepares the learner to use hand tools and power tools in basic applications of carpentry, plumbing, and basic electricity. CONDITION: 310011 Horticulture Technician or 100014 Sustainable Landscape Horticulture program requirements met

GREENHOUSE AND NURSERY PRODUCTION...provides the student with the skills to analyze and implement efficient, cost-effective, and sustainable methods of horticultural production in a variety of structures as well as field scenarios. PREREQUISITES: 10001153 Botany and Soil Science and 10001110 Horitculture-Introduction

**HORTICULTURE INTRODUCTION**...introduces the learner to the horticulture industry, plant culture, identification, propagation, and physiology. Course will also explore the horticulture industry in regard to fruits, vegetables, ornamentals, greenhouse systems, landscape techniques, home gardens, and turf.

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. COREQUISITE: 10838105 Intro Reading and Study Skills or equivalent

INTRODUCTION TO AMERICAN GOVERNMENT...introduces American political processes and institutions. It focuses on rights and responsibilities of citizens and the process of participatory democracy. Learners examine the complexity of the separation of powers and checks and balances. Itexplores the role of the media, interest groups, political parties and public opinion in the political process. It also explores the role of state and national government in our federal system.

LANDSCAPE DESIGN STUDIO INTRODUCTION ... prepares the learner to graphically describe objects without CAD Systems or landscape drawing aids. Fundamental components of design process; lettering, geographic construction, orthographic projection, isometric sketching, section views, auxiliary views and dimensioning are covered.

LANDSCAPE INSTALLATION 1...investigates techniques used in landscape construction practices. These include the use of specific landscape tools, plan implementation methods, preliminary site survey methods, proper planting, equipment operations & installations of basic landscape features.

LANDSCAPE INSTALLATION 2...builds upon landscape construction methods learned in Introduction to Landscape Installation. Possible projects include mixed material patios, retaining walls, water features, sustainable landscape elements, rain gardens, roof gardens, wooden structures, etc. COREQUISITE: 10001180 Landscape Installation 1

LANDSCAPE MAINTENANCE...assists learner in identifying problems and cultural challenges in the landscape; pruning techniques, insect/disease problems, weed identification; soil fertility; resolving situations in the field. Course will include production, maintenance, and harvest of edible and ornamental plants. PREREQUISITES: 10001110 Horticulture Introduction and 10001153 Botany and Soil Science

MATH WITH BUSINESS APPLICATIONS...covers real numbers, basic operations, linear equations, proportions with one variable, percents, simple interest, compound interest, annuity, apply math concepts to the purchasing/buying process, apply math concepts to the selling process, and basic statistics with business/consumer applications. PREREQUISITE: 10834109 Pre-Algebra or equivalent and COREQUISITE: 10838105 Intro Reading and Study Skills or equivalent

**ORAL/INTERPERSONAL COMMUNICATION**...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. COREQUISITE: 10838105 Intro Reading and Study Skills or equivalent

PLANT COMMUNITIES OF WISCONSIN...enables the student to experience the diversity of the native plant communities throughout the Lakeshore region of Wisconsin and beyond. This course will involve extensive plant and plant community identification and analysis in the field. PREREQUISITES: 10001158 Plants 2 and 10001159 Plants 1 or CONDITION: 190014 Design of Sustainable Landscapes-Adv Certificate admissions requirements met

**PLANTS 1**...prepares the learner to use flowers/foliage effectively in the landscape including annuals/perennials/roses. Care of each flower emphasizing selection and tips to best utilize each flower and ground-cover/vines is included.

PLANTS 2...provides the learner with the physiology, culture, identification, and use of primarily temperate woody plant materials appropriate for landscapes in northeastern Wisconsin. PREREQUISITE: 10001159 Plants 1

PRINCIPLES OF SUSTAINABILITY...prepares students to develop sustainable literacy, analyze interconnections among physical and biological sciences and environmental systems, summarize effects of sustainability on health and well-being, analyze connections among social, economic, and environmental systems, employ energy conservation strategies to reduce use of fossil fuels, investigate alternative energy options, evaluate options to current waste disposal/recycling in the U.S., and analyze approaches used by your community.COREQUISITE: 10838105 Intro Reading and Study Skills or equivalent

SITE INVENTORY AND ANALYSIS...guides the student through inventory and evaluation of physical, biological, and cultural site resources to determine their potential for enhancement of human activities and their sensitivities to use-impact. Emphasis on information sources, data gathering methods and analysis techniques with projects to develop proficiency. PREREQUISITES: 10001127 Landscape Design Studio Introduction or CONDITION: 190014 Design of Sustainable Landscape-Adv Certificate admissions requirements met

**STORMWATER STRUCTURES AND MANAGEMENT**...analyzes and implements stormwater retention, detention, and harvesting at various landscape scales from backyard to regional watersheds. Environmental regulation considerations, best management practices, and design approaches will be utilized inproject installations.

SUSTAINABLE HORTICULTURE CAPSTONE EXPERIENCE...undertakes independent study across the horticulture field, implements knowledge and skills, and analyzes progress and results. Proposal Scope must be approved by the instructor. PREREQUISITES: 10001140 Advanced Concepts in Horticulture and COREQUISITE: 10001147 Advanced Greenhouse and Nursery Management or CONDITION: 190014 Design of Sustainable Landscapes admissions requirements met

SUSTAINABLE LANDSCAPE MANAGEMENT...implements management and supervisory strategies for "triple bottom line" sustainability (Environmental, Economic, and Social) landscape scale management operations. PREREQUISITE: 10001172 Landscape Maintenance or CONDITION: 190013 Management of Sustainable Landscapes admissions requirements met

TECHNICAL REPORTING...provides students with the skills to prepare and present oral and written technical reports. Types of reports may include lab and field reports, proposals, technical letters and memos, technical research reports, and case studies. PREREQUISITE: 10831103 Intro to College Wrtg or equivalent and COREQUISITE: 10838105 Intro Rdg & Study Skills equivalent

TECHNOLOGY IN HORTICULTURE AND LANDSCAPE...utilizes various programs and technologies for landscape, nursery, greenhouse, small/urban farm, and grounds planning, design, reporting, and monitoring. PREREQUISITE: 10001140 Advanced Concepts in Horticulture and COREQUISITE: 10001144 Sustainable Horticulture Capstone Experience

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