

LANDSCAPE DESIGN & HORTICULTURE COURSE MODULES (YEAR 1)

Our City in a Garden didn't get its moniker by chance. You too can be the drive behind our green landscape! If you have a love for nature and a flair for design, the Diploma in Landscape Design & Horticulture [LOH] will put you on the right track to develop and enrich Singapore's green spaces. Combining landscape design, plant science and horticulture management, LOH is the only diploma-level course of its kind in Singapore. Thanks to our strong partnership with National Parks Board, much of your practical training, field training and outdoor lessons will take place at the Singapore Botanic Gardens and other parks.

In your first year, you will develop skills in landscape design and learn about urban ecology and conservation, as well as plant taxonomy. You will progress on to learn about horticulture and turf management, genetics and breeding of plants, and hardscape and softscape designs in your second year

In your final year, you will get to go for a 22-week internship that provides you with an opportunity to put your learning into practice in a work environment. You will also be able to undertake a project to apply your horticulture and plant science knowledge to develop innovative landscape designs or deepen your horticultural knowledge and skills.

In addition, this course will provide you with the opportunity to hone your horticultural and project management skills at the Singapore Botanic Gardens and many other parks and project sites in Singapore.

LEVEL 1.1

CAD & Graphic Applications

In this module, students will learn the use of computer aided drafting (CAD) and industry-standard graphic software for drafting and design. Topics include drafting in CAD, image editing in Adobe Photoshop, 3D modelling and drawing in SketchUp. Students will gain hands-on practice to create plans, sections and perspectives for landscape drafting and design presentations.

Career & Professional Preparation I

This module is part of the Education and Career Guidance framework to provide students with the tools and resources necessary for their career and/ or further education. In this first module, students will undergo personal discovery and exploration of industry and career prospects. Students will learn how to plan and set achievable goals in preparation for their future. Students will also learn the importance of passion and professionalism, and basic teamwork and interpersonal skills.

Floristry & Interiorscapes

In this module, students will come to appreciate the finer points of basic flower designs and the proper handling of fresh flowers and foliage, as well as the use of potted plants and hydroculture plants in interiorscapes.

Plant Anatomy & Morphology

This module explores the structural and functional features of plant cells, types of cells and tissues, anatomy and morphology of roots, stems and leaves, and the anatomical development of seeds. Other topics include differences between monocots and dicots, flower structure and plant reproductive cycle.

Taxonomy & Plant Identification

This module surveys the principles of plant taxonomy, the relationship among plants, and the classification and biology of algae, fungi, bryophytes, gymnosperms and angiosperms. Other topics include the identification, use, origin and cultural requirements of trees, shrubs, vines and ground covers used for horticultural practices. The emphasis is on common landscape plants used in Singapore.

LEVEL 1.2

Chemistry

In this module, students will study the basic concepts of chemistry, including the nature, properties, and transformations of matter; stoichiometry and equilibria of chemical reactions; acids and bases; redox reactions; and the fundamentals of organic chemistry.

Landscape Design Communication 1

In this module, students will learn and apply techniques to produce landscape drawings manually and to communicate their designs through these graphics and plant symbols. Topics will include drafting and rendering techniques, lettering conventions in creating landscape plans, sections, elevations and sketching using freehand representation.

Landscape Studio 1 – Design Fundamentals

This module introduces the design fundamentals of space creation and visualisation, two- and three-dimensional designs and their application to simple designs. Students are given an overview of professional concerns and responsibilities to use land in an efficient and attractive manner.

Soil Science & Plant Nutrition

This module covers the fundamentals of soil science, types of growing media, mineral nutrients, soil environment, soilless culture and plant growth in hydroponics systems. Topics include soil formation, soil properties, soil chemical processes, soil fertility, soil pH and nutrient availability, nutrient cycle, soil biology, nutrients in media (soil and soilless), and their uptake, functions, deficiency symptoms and management. Students will learn to use MS Excel to manage and present their data.

Urban Ecology & Conservation

This module covers aspects of sustainable environmental management, biodiversity and its conservation, successions, water management, environmental pollution, and discusses how plants are used to restore habitats and enhance the biodiversity in an urban environment.

COURSE CURRICULUM (YEAR 1)

Module Name	Credit Units
YEAR 1	
Level 1.1 (22 hours per week)	
CAD & Graphic Applications	5
Career & Professional Preparation I	1
Floristry & Interiorscapes	3
Plant Anatomy & Morphology	5
Taxonomy & Plant Identification	5
Innovation Made Possible ^	3
Level 1.2 (26 hours per week)	
Chemistry	4.5
Landscape Design Communication 1	3
Landscape Studio 1 – Design Fundamentals	5
Soil Science & Plant Nutrition	6
Urban Ecology & Conservation	2.5
Communication Essentials ^	3
Sports & Wellness ^	2

Notes:

^ For more details on Interdisciplinary Studies (IS) electives, please log on to www.np.edu.sg/is/

IS Modules

The School of Interdisciplinary Studies (IS) delivers a broad-based curriculum, which nurtures a new generation of professionals with multidisciplinary skills and an innovative and entrepreneurial spirit to meet the challenges of a knowledge economy. IS offers both prescribed modules and electives to challenge boundaries. Prescribed modules develop students' competencies in core areas such as Communication, Innovation and Enterprise, Culture and Communication, and Personal Mastery and Development, while elective modules provide insights into Arts and Humanities, Business, Design, and Science and Technology.