

## SEMESTER II

### LSM3256 TROPICAL HORTICULTURE

**Prerequisites:** LSM1105 Evolutionary Biology

**Workload:** 26 lecture hours + 18 practical hours + 6 tutorial hours

#### **Course description:**

This module is essentially **an introduction to tropical horticulture**, with emphasis on its application in Singapore, a tropical city in a garden. Topics are as below. This module's **teaching modes** differ from those of most NUS science modules in that for the equivalent of the **lectures**, students will be assigned reading before the lecture time slot and this will consist of introductory notes, sections of textbooks or other publications, webpages and/or online videos. During the lecture time slot, students will seek explanations of difficult portions and discuss the readings as guided by open-ended questions to better reflect real life applications. Thus this is not a module for people who hate to read or hate to learn independently! **Practical sessions** are as follows: Practical 1 consists of demonstrations of horticultural tools and techniques that students will practise. Practical 2 is a guided field trip to examine the landscape design of Kent Ridge Campus. Practicals 3 to 5 have this format: (1) A talk by a horticulturist (private or public sectors); (2) Discussion of a video on landscape design; (3) Presentation by students on a horticultural feature in Singapore including parks, streetscapes, vegetable farm, commercial nursery, golf course or driving range, and HDB estate or condominium landscaping (CA Assignment 2). Practical 6 will be an evaluation of the two horticultural projects (CA Assignments 1 and 3). **Tutorials** are to prepare students with life skills for the horticultural projects and presentation (CA Assignments 1 to 3) including training on how to make presentations, write reports, become more creative (Yes, creativity can be taught!), and invent things. **What are the benefits of this module?** Students learn how to grow, maintain, propagate, and landscape tropical plants, including how to grow their own food crops which will be useful information because of the precariousness of the global food supply in light of climate change, increasing World population, natural disasters, disease outbreaks, etc. Students also learn useful life skills such as independent learning, making business contacts, making presentations, as well as being creative. Students who enroll for this module may be more likely to obtain National Parks Board internships. **What are the challenges of this module?** This module is different from the norm so is most suitable for very hardworking students who enjoy thinking out of the box, dare to take risks and/or are passionate about agriculture, botany, farming, gardening, or horticulture.

S/N	Topics (sequence may change)	Lecture hours
1.	Course overview; the underlying science; importance of horticulture; horticulture industry in Singapore and overseas; horticultural societies, institutions, companies	2
2.	Plant cultivation methods	2
3.	Soils, growing media, and fertilizers	2
4.	Propagating plants	2
5.	Introduction to landscape design	2
6.	Keeping plants healthy	2
7.	Indoor plants	2
8.	Outdoor plants (excluding turf grasses)	2
9.	Lawns	2
10.	Special techniques (soil-less methods, cut flowers, bonsai, terraria, aquatic plants, urban agriculture) less vertical and green roofing	2
11.	Vertical and roof greening	2
12.	Conservation and horticulture	2
13.	Urban landscaping to attract wildlife	2
		Total Lectures: 26h Practicals: 18h Tutorials: 6h
<b>Total hours:</b>		<b>50h</b>

**TEXT BOOK** (recommended text: see the IVLE website for more references):

Acquaah, G., 2009. *Horticulture: Principles and Practices. 4th Edition*. Pearson-Prentice hall, New Jersey. 816 pp. SB318 Acq 2009

#### **MODE OF ASSESSMENT:**

100% Continuous Assessment and there is NO examination.

- Horticultural mini group project (25%)
- Horticultural creativity group project (12.5%)
- Group presentation (12.5%)
- After-lesson tests (50%)

#### **MODULE CO-ORDINATOR AND TEACHER:**

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