

**Division of Life Science**  
**The Hong Kong University of Science and Technology**

**LIFS 2080 Plant Biology**

Spring semester, 2019

Credits: 3 (**2 lectures + 1 tutorial**)

Pre-requisites: LIFS 2210 or LIFS 2040

Course coordinator: Prof. Ning Li

Instructors: Prof. Ning Li, Dr. Melody Leung

**Course goals**

This is a core lecture course accompanied by the practical course LIFS 2280 to provide students with a preliminary understanding of the basic cellular structures, molecular mechanisms and physiological processes during plant growth, development and reproduction. The course is also to provide students with current research topics on plant biotechnology.

**Reference books**

1. Biology of Plants by Raven et al.

Assessment scheme

Components	Percentage
A. Mid-term Examination	50
B. Final Examination	50

**Teaching Schedule**

**L1**

Lectures

Monday	15:00-15:50	Rm 4620
Wednesday	15:00-15:50	Rm 4620

Tutorials

Friday	15:00-15:50	Rm 4620
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**L2**

Lectures

Monday	17:00-17:50	Rm 4620
Wednesday	17:00-17:50	Rm 4620

Tutorials

Friday	17:00-17:50	Rm 4620
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## Class outline

Week	Date	Topic	Instructor
1	30 Jan (Wed)	Agriculture, food and human	Li
	1 Feb (Fri)	Plant cellular structure and chemical composition 1	Li
	4 Feb (Mon)	Plant cellular structure and chemical composition 2	Li
	8 Feb (Fri)	Tutorial	Li
2	11 Feb (Mon)	Shoot & root primary growth	Leung
	13 Feb (Wed)	Shoot & root secondary growth	Leung
	15 Feb (Fri)	Tutorial	Leung
3	18 Feb (Mon)	Photosynthesis 1	Leung
	20 Feb (Wed)	Photosynthesis 2	Leung
	22 Feb (Fri)	Tutorial	Leung
4	25 Feb (Mon)	Introduction to flowering plants	Li
	27 Feb (Wed)	Reproduction of plant and development of seeds	Li
	1 Mar (Fri)	Tutorial	Li
5	4 Mar (Mon)	Hormonal physiology 1	Li
	6 Mar (Wed)	Hormonal physiology 2	Li
	8 Mar (Fri)	Tutorial	Li
6	11 Mar (Mon)	Hormonal physiology 3	Li
	13 Mar (Wed)	Hormonal physiology 4	Li
	15 Mar (Fri)	Tutorial	Li
7	18 Mar (Mon)	Review	Li / Leung
	20 Mar (Wed)	Mid-term exam	Li / Leung
8	25 Mar (Mon)	Plant response to environmental stimuli 1	Li
	27 Mar (Wed)	Plant response to environmental stimuli 2	Li
	29 Mar (Fri)	Tutorial	Li

9	1 Apr (Mon)	Plant cell signaling 1	Li
	3 Apr (Wed)	Plant cell signaling 2	Li
10	8 Apr (Mon)	Respiration & Energy	Leung
	10 Apr (Wed)	Movement of Water and Solutes	Leung
	12 Apr (Fri)	Plant defense responses to pathogens	Leung
11	15 Apr (Mon)	*Tutorial*	Leung
	17 Apr (Wed)	Plant molecular biotechnology 1	Li
	24 Apr (Wed)	Plant molecular biotechnology 2	Li
	26 Apr (Fri)	Tutorial	Li
12	29 Apr (Mon)	Plant molecular biotechnology 3	Li
	3 May (Fri)	Tutorial	Li
13	6 May (Mon)	Review for the final exam	Li / Leung
	TBC	Final exam	Li