

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

LIFS 2080 Plant Biology

Spring semester, 2018

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	17:00-17:50	Rm 1104
Wednesday	17:00-17:50	Rm 1104

Tutorials

Friday	17:00-17:50	Rm 1104
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L2

Lectures

Monday	09:30-10:20	Rm 1104
Wednesday	09:30-10:20	Rm 1104

Tutorials

Friday	09:30-10:20	Rm 1104
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Class outline

Week	Date	Topic	Instructor
1	2 nd Feb	Agriculture, food and human	Li
	5 th Feb	Plant cellular structure and chemical composition 1	Li
	7 th Feb	Plant cellular structure and chemical composition 2	Li
	9 th Feb	Tutorial	Li
2	12 th Feb	Shoot & root primary growth	Leung
	14 th Feb	Shoot & root secondary growth	Leung
3	21 st Feb	Photosynthesis 1	Leung
	23 rd Feb	Tutorial	Leung
4	26 th Feb	Photosynthesis 2	Leung
	28 th Feb	Respiration & Energy	Leung
	2 nd Mar	Tutorial	Leung
5	5 th Mar	Movement of Water and Solutes	Leung
	7 th Mar	Plant defense responses to pathogens	Leung
	9 th Mar	Tutorial	Leung
6	12 th Mar	Introduction to flowering plants	Li
	14 th Mar	Reproduction of plant and development of seeds	Li
	16 th Mar	Tutorial	Li
7	19 th Mar	Review	Li / Leung
	21 st Mar	Midterm exam	Li / Leung
8	26 th Mar	Hormonal physiology 1	Li
	28 th Mar	Hormonal physiology 2	Li
	6 th Apr	Tutorial	Li
9	9 th Apr	Hormonal physiology 3	Li
	11 th Apr	Hormonal physiology 4	Li

	13 th Apr	Tutorial	Li
10	16 th Apr	Plant response to environmental stimuli 1	Li
	18 th Apr	Plant response to environmental stimuli 2	Li
	20 th Apr	Tutorial	Li
11	23 th Apr	Plant cell signaling 1	Li
	25 th Apr	Plant cell signaling 2	Li
	27 th Apr	Tutorial	Li
12	30 th Apr	Plant biotechnology 1	Li
	2 nd May	Plant biotechnology 2	Li
	4 th May	Tutorial	Li
13	7 th May	Review	Li
	TBC	Final exam	Li