學期	1121
開課單位	生命科學系
流水號	24028
課號	LS5056-*
授課教師	高永旭
課程名稱(中文)	綠茶兒茶素生物作用與訊息傳遞
課程名稱(英文)	Biological effects and signal transduction of green tea catechins
課程學制	碩博同修
學分	3
課程目標	"了解綠茶兒茶素作用機制以及其訊息傳遞路徑, 進而了解食品保健之重要性."
授課內容	"1st week: Introduction 2nd week: History and components of green tea 3rd week: Distribution of green tea and differences from oolong tea and black tea, Teacher Holiday 4th week: Chemical structures, isolation, separation, and determination of green tea catechin 5th week: Antioxidant activity of green tea catechin 6th week: Green tea catechin regulation of endocrine systems 7th week: Green tea catechin regulation of body weight and obesity 8th week: Green tea catechin signaling in fat cell growth and apoptosis 9th week: Green tea catechin signaling in hormone-mediated fat cell function (mid-term exam) 10th week: Antidiabetic effects of green tea catechins

	11th week: Annual University Sports (No class) 12th week: Neuroprotective effects of green tea catechin 13th week: Effects of green tea catechin on cardiovascular disease 14th week: Anticancer effects of green tea catechin 15th week: Antibacterial and antiviral effects of green tea catechin 16th week: Anti-inflammatory effect of green tea catechin 17th week: Pharmacokinetics of green tea catechin (oral report) 18th week: Clinical studies of green tea catechin in cancers/metabolic syndromes (oral report)"
教科書/參考書	"Textbook: Victor R. Preedy. 2013. Tea in Health and Disease Prevention. Academic Press, ISBN-978-0-12-384-937-3 Reference book: Yamamoto et al., 1997. Chemistry and Application of Green tea. CRC Press. ISBN 0-8493-4006-3. Journals: Nature, Mol Nutr Food Res, Food Function, J. Agri. Sci. Critical Rev. Food Sci. Technol., JBC, Cancer Lett, PNAS, Planta Medica, J Nutr, Clin Nutr, Nutr, Nutr Review, etc."
自編教材比例	0
授課方式	講授
評量配分比重	"口頭報告: 40% 書面報告: 40% 出席率與討論: 20%"
辦公時間	星期三下午2:00-4:00
授課週數	18
彈性教學說明	
課程領域	進階學科 、 農業應用 、 醫藥

系所核心能力	強度指數	評量方式
高等生物專業知識	(5) 非常高	作業練習 ， 口頭報告/口試 ， 專題研究報告(書面) ， 出席/課堂表現
創新及整合研究	(5) 非常高	作業練習 ， 口頭報告/口試 ， 專題研究報告(書面) ， 出席/課堂表現

專業寫作與表達	(5) 非常高	作業練習 ， 口頭報告/口試 ， 專題研究報告(書面) ， 出席/課堂表現
國際觀	(5) 非常高	作業練習 ， 口頭報告/口試 ， 專題研究報告(書面) ， 出席/課堂表現