

<p>尊重智慧財產權，請使用正版教科書，不得非法影印。</p> <p>使用逾期或，未取得合法授權之教材或將試用版教材以公開傳輸利用者，皆屬侵害他人著作權，將處刑責、拘役及罰金，請勿以身試法。</p>	
學期	1121
開課單位	生命科學系
流水號	24018
課號	LS5018-*
授課教師	高永旭
課程名稱(中文)	脂質特論
課程名稱(英文)	Special Topics in Fats
課程學制	碩博同修
學分	3
課程目標	"The course is to instruct students the advanced knowledge in the area of lipid biochemistry. In addition, the course would focus on the discussion. Also, the class students must present an oral report and a paper report after they read the literature relevant to the lipids."
授課內容	<p>"1st week: Introduction</p> <p>2nd week: Lipid definition, lipid classification</p> <p>3rd week: Classification and metabolism of fatty acids</p> <p>4th week: Classification and metabolism of triacylglycerols</p> <p>5th week: Classification and metabolism of phospholipids</p> <p>6th week: Classification and metabolism of cholesterol and steroid hormones</p> <p>7th week: Lipid: isolation, separation, and detection</p> <p>8th week: Lipid &amp; development: Changes in total lipids and lipid classes during metamorphosis</p> <p>9th week: Mid-term exam</p> <p>10th week: Lipid metabolism &amp; development: Changes in lipid</p>

	<p>metabolism during metamorphosis</p> <p>11th week: Fatty acid assay and fatty acid composition analysis</p> <p>12th week: Lipid depot organ: Development of fat cells and obesity</p> <p>13th week: Nutritional regulation: Green tea catechin regulation of fat cell functions</p> <p>14th week: Hormone regulation: Regulation of fish lipid metabolism by insulin and somatostatin</p> <p>15th week: Lipid metabolism in cancers I (e.g., prostate cancer and colon cancer)</p> <p>16th week: Lipid metabolism in cancers II (e.g., prostate cancer and colon cancer) (oral report)</p> <p>17th week: Adipokines (oral report)</p> <p>18th week: White &amp; Brown Adipose Tissues (Final exam, oral report)"</p>
教科書/參考書	<p>"教科書: 1. Gurr MI, Harwood JL, Frayn KN. 2002. "Lipid Biochemistry". 5th edition. Blackwell Science Ltd. Osney Mead, Oxford, UK. 2. Vance DE and Vance JE. 2008. "Biochemistry of lipids, lipoproteins, and membranes". 5th edition. Elsevier, The Netherlands.</p> <p>Reference book: Gunstone FD. 2004. "The chemistry of oils and fats". Blackwell Science Ltd. Osney Mead, Oxford, UK</p> <p>參考文獻: Lipids, J Biol Chem, J Lipid Res, Nature, Science, BBRC, BBA"</p>
自編教材比例	70
授課方式	講授 研討
評量配分比重	<p>"Course requirements: question/appearance 20% oral 40% term paper 40% total 100%"</p>
辦公時間	Wednesday 2:00–4:00 pm
授課週數	18
彈性教學說明	

課程領域	進階學科、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	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	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	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	口頭報告/口試，專題研究報告(書面)，出席/課堂表現