

國立清華大學 112 學年第 1 學期新開課程課程大綱

科號 Course Number	11120LSBT584500	學分 Credit	1	人數限制 Class Size	
中文名稱 Course Title	共軛焦顯微鏡實驗				
英文名稱 Course English Title	Confocal Microscopy Laboratory				
任課教師 Instructor	湯學成				
上課時間 Time	MnTn	上課教室 Room	LS II 生二 526		

課程簡述(必填)(最多 500 個中文字) 本欄位資料會上傳教育部課程網  
 1-2nd hours: course introduction 3-4th hours: basics of microscopy 5-6th hours: laser scanning microscopy 7-10th hours: confocal microscopy laboratory (session #1, equipment introduction & procedure/operation training) 11-16th hours: confocal microscopy laboratory (session #2, hands-on practice-1) 17-24th hours: confocal microscopy laboratory (session #3, hands-on practice-2) 25-26th hours: written qualification exam 27-28th hours: operation qualification exam 29-30th hours: troubleshooting and consultation 31-35th hours (consultation on research topics related to confocal microscopy)

請輸入課程內容「中文暨英文關鍵字」至少 5 個，每個關鍵字至多 20 個中文，以半形逗點分隔 (必填)

Laser scanning microscopy; Fluorescence imaging; Optical imaging; Confocal imaging; Optical sectioning

一、課程說明	訓練大學部與研究所學生共軛焦顯微鏡使用能力
二、指定用書	Zeiss LSM confocal microscope user guide
三、參考書籍	Zeiss principles of confocal microscopy
四、教學方式	教師解說與學生上機操作
五、教學進度	1-2nd hours: course introduction (week 1) 3-4th hours: basics of microscopy (week 2) 5-6th hours: laser scanning microscopy (week 3) 7-10th hours: confocal microscopy laboratory (session #1, equipment introduction & procedure/operation training) (week 4-6)

	<p>11-16th hours: confocal microscopy laboratory (session #2, hands-on practice-1) (week 7-9)</p> <p>17-24th hours: confocal microscopy laboratory (session #3, hands-on practice-2) (week 10-13)</p> <p>25-26th hours: written qualification exam (week 14)</p> <p>27-28th hours: operation qualification exam (week 15)</p> <p>29-30th hours: troubleshooting and consultation (week 16)</p> <p>31-35th hours (week 17-18; consultation on research topics related to confocal microscopy)</p>
六、成績考核	<p>Written qualification exam (50%)</p> <p>Operation qualification exam (50%)</p>
七、可連結之網頁位址(相關網頁)	<p><a href="http://zeiss-campus.magnet.fsu.edu/referencelibrary/laserconfocal.html">http://zeiss-campus.magnet.fsu.edu/referencelibrary/laserconfocal.html</a></p>