

## 顱顏口腔生物學

一、招生班別：顱顏口腔醫學研究所碩士學分班

二、課程簡介：

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| 課程簡介          | 本課程內容包括 1. 顱顏胚胎學 2.結蒂組織與骨生理 3. 肌肉與神經生理學 4.口腔軟組織、齒槽骨創傷癒合之組織與生理反應 5.富含血小板血漿之組織與生理科學與於牙科與顱顏面骨之應用 6. 機械力引導骨質新形成之組織與生理科學於與牙科與顱顏面骨之應用 7.骨髓間葉幹細胞 8.組織工程之基架 9.骨髓間葉幹細胞於口腔組織工程之應用。                                                                                                                                                                                                                                                                                 |
| 教學目標          | 本課程的目標為讓研究生能由基礎醫學的學習與建構，例如與顱顏口腔有關之胚胎學、細胞分子生物學、組織學、與生理學，漸進式地導入顱顏口腔組織工程（軟組織與硬組織）等之應用牙醫學，以期養成兼具基礎研究能力的臨床牙醫師、或臨床研究相關人員。                                                                                                                                                                                                                                                                                                                                      |
| 教學方法<br>(可複選) | <input checked="" type="checkbox"/> 演講 <input type="checkbox"/> 問答 <input type="checkbox"/> 團體討論 <input type="checkbox"/> 分組討論 <input type="checkbox"/> 個案研討 <input type="checkbox"/> 示範 <input type="checkbox"/> 研習會 <input type="checkbox"/> 角色扮演 <input type="checkbox"/> 視聽教學 <input type="checkbox"/> 腦力激盪 <input type="checkbox"/> 活動教學 <input checked="" type="checkbox"/> 其他：Lectures and seminars                                               |
| 成績考核          | 隨堂測驗（10%）、期中考（40%）、期末考（50%）                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 教科書           | 1.Advanced Oral Biology<br>2.Oral development and histology. By James K Avery. Williams & Wilkins.                                                                                                                                                                                                                                                                                                                                                       |
| 參考書(講義)       | 1. Textbook and color atlas of traumatic injuries to the teeth. 3rd edition, by JO Andreasen and FM Andreasen. Mosby.<br>2. Dental and craniofacial applications of platelet-rich plasma. By Robert E, Marx, Arun K. Garg, 2005 Quintessence Publishing Co, Inc.<br>3. Orthodontics, Current principles and techniques. 3rd edition, by Graber TM and Vanarsdall RL Jr, 2000 Mosby.<br>4. Dental implant prosthetics. By Misch CE. 2005, Elsevier Mosby. |
| 教師簡介          | 劉人文／長庚大學顱顏口腔醫學研究所助理教授／美國伊利諾大學芝加哥分校外科學碩士<br>陳志平／長庚大學化工與材料工程系教授／美國賓州州立大學化工博士<br>廖漢聰／長庚整形外傷科主治醫師／長庚化工材料研究所博士<br>吳秋彬／林口長庚紀念醫院齒顎矯正科主治醫師／美國西北大                                                                                                                                                                                                                                                                                                                 |

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|  | 學博士 |
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三、收費標準：每學分每人 6,000 元，報名費每人 500 元

四、上課時間：114 年 02 月 21 日起 每星期五 18:10~21:00

五、上課地點：長庚大學

六、授課大綱：

| 週次 | 上課日期      | 開始/結束<br>時間 | 時<br>數 | 授課大綱                                                                                                                                                                               | 授課教師 |
|----|-----------|-------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 1  | 114/02/21 | 18:10~19:30 | 3hr    | The dynamics of wound healing process of oral soft issues                                                                                                                          | 劉人文  |
|    |           | 19:40~21:00 |        | Reading assignments (2 articles) & discussion                                                                                                                                      |      |
| 2  | 114/02/28 | 18:10~21:00 | 3hr    | (Holiday)228 Peace Memorial Day                                                                                                                                                    | 劉人文  |
| 3  | 114/03/07 | 18:10~19:30 | 3hr    | The biological bone markers in alveolar bone metabolism                                                                                                                            | 劉人文  |
|    |           | 19:40~21:00 |        | 2 Free reading journal articles selected and presented by students for free discussion                                                                                             |      |
| 4  | 114/03/14 | 18:10~19:30 | 3hr    | The development & biology of platelet rich plasma, & The mechanics of platelet rich plasma in bone physiology & dental implant                                                     | 劉人文  |
|    |           | 19:40~21:00 |        | 2 Free reading journal articles selected and presented by students for free discussion                                                                                             |      |
| 5  | 114/03/21 | 18:10~19:30 | 3hr    | The biological & mechanical principles of distraction osteogenesis                                                                                                                 | 劉人文  |
|    |           | 19:40~21:00 |        | 2 Free reading journal articles selected and presented by students for free discussion                                                                                             |      |
| 6  | 114/03/28 | 18:10~19:30 | 3hr    | Scaffold in Tissue Engineering                                                                                                                                                     | 陳志平  |
|    |           | 19:40~21:00 |        | Reading assignments (2 articles) & group discussion                                                                                                                                |      |
| 7  | 114/04/04 | 18:10~21:00 | 3hr    | (Holiday) Tomb Sweeping Day                                                                                                                                                        | 廖漢聰  |
| 8  | 114/04/11 | 18:10~19:30 | 3hr    | Craniofacial embryology: presence or absence of incisive canal in cleft patients?<br>The Prevalence and anatomical manifestations of incisive canal and orifices in cleft patients | 劉人文  |

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|----|-----------|-------------|-----|----------------------------------------------------------------------------------------------|-----|
|    |           | 19:40~21:00 |     | 2 Free reading journal articles selected and presented by students for free discussion       |     |
| 9  | 114/04/18 | 18:10~21:00 | 3hr | Mid-term examination                                                                         | 劉人文 |
| 10 | 114/04/25 | 18:10~19:30 | 3hr | Connective Tissue, Collagen and non-collagenous proteins                                     | 吳秋彬 |
|    |           | 19:40~21:00 |     | Reading assignments (2 articles) & discussion                                                |     |
| 11 | 114/05/02 | 18:10~21:00 | 3hr | Laboratory experimental design                                                               | 吳秋彬 |
| 12 | 114/05/09 | 18:10~19:30 | 3hr | Bone biology, Osteo-induction and osteo-conduction                                           | 吳秋彬 |
|    |           | 19:40~21:00 |     | Reading assignments (2 articles) & discussion                                                |     |
| 13 | 114/05/16 | 18:10~21:00 | 3hr | Molecular mechanism of the Orthodontic tooth movement using collagenous 3 as a working model | 吳秋彬 |
| 14 | 114/05/23 | 18:10~19:30 | 3hr | Bioactive molecules to stimulate repair and regeneration                                     | 吳秋彬 |
|    |           | 19:40~21:00 |     | Reading assignments (2 articles) & discussion                                                |     |
| 15 | 114/05/30 | 18:10~21:00 | 3hr | (Holiday)Dragon Boat Festival                                                                | 吳秋彬 |
| 16 | 114/06/06 | 18:10~21:00 | 3hr | Final examination                                                                            | 吳秋彬 |
| 17 |           |             | 3hr | 彈性學習-Case report                                                                             | 劉人文 |
| 18 |           |             | 3hr | 彈性學習-Case report                                                                             | 劉人文 |

※以上師資與課程內容時間場地等僅供參考，若有異動以各系所公告為主。