

教學大綱

| 課程名稱：遺傳學實習 | | 上課班級：園藝系二年級 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 授課教師：郭濰如 | | 學分數：1 <input checked="" type="checkbox"/> 必修 <input type="checkbox"/> 選修 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 先修科目：無 | | 上課時數： | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>一、教學目標：</p> <p>本課程旨在配合遺傳學教學內容，進行相關之實驗與實習，印證正課內容，加深學習之效果</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>二、教學方式與成績評量：</p> <p>學習情意—20% ，實習報告—40% ，期末測驗—40%</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>三、教學內容及進度：</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 10%;">週別</th> <th style="width: 25%;">實習科目</th> <th style="width: 65%;">實習內容</th> </tr> </thead> <tbody> <tr><td>一</td><td>教學準備</td><td>實驗室規則講解及分組</td></tr> <tr><td>二</td><td>有絲分裂(一)</td><td>講解及永久切片鏡檢</td></tr> <tr><td>三</td><td>有絲分裂(二)</td><td>分蔥根尖壓片</td></tr> <tr><td>四</td><td>減數分裂(一)</td><td>講解及模式圖繪製</td></tr> <tr><td>五</td><td>減數分裂(二)</td><td>永久切片鏡檢</td></tr> <tr><td>六</td><td>機率的認識</td><td>黑白棋、骰子、錢幣試驗</td></tr> <tr><td>七</td><td>卡方符合度檢定</td><td>驗證機率實驗之結果</td></tr> <tr><td>八</td><td>模式生物介紹</td><td>果蠅之雜交與遺傳</td></tr> <tr><td>九</td><td>性別決定與遺傳</td><td>錄影帶教學：X + Y = 擠擠擠、複製人</td></tr> <tr><td>十</td><td>性連遺傳</td><td>人類色盲之遺傳及檢查</td></tr> <tr><td>十一</td><td>連鎖遺傳</td><td>基因圖繪製</td></tr> <tr><td>十二</td><td>複對偶基因遺傳</td><td>1.人類 ABO 血型遺傳及檢驗</td></tr> <tr><td>十三</td><td>DNA 的構造</td><td>DNA 紙板模型製作</td></tr> <tr><td>十四</td><td>核型分析</td><td>人類男性染色體核型分析</td></tr> <tr><td>十五</td><td>巨大染色體</td><td>果蠅唾腺染色體永久切片鏡檢</td></tr> <tr><td>十六</td><td>染色體計數</td><td>分蔥根尖壓片製作</td></tr> <tr><td>十七</td><td>遺傳工程</td><td>錄影帶教學：無性生殖、疫苗製作</td></tr> <tr><td>十八</td><td>期末測驗</td><td>期末測驗</td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table> | | | 週別 | 實習科目 | 實習內容 | 一 | 教學準備 | 實驗室規則講解及分組 | 二 | 有絲分裂(一) | 講解及永久切片鏡檢 | 三 | 有絲分裂(二) | 分蔥根尖壓片 | 四 | 減數分裂(一) | 講解及模式圖繪製 | 五 | 減數分裂(二) | 永久切片鏡檢 | 六 | 機率的認識 | 黑白棋、骰子、錢幣試驗 | 七 | 卡方符合度檢定 | 驗證機率實驗之結果 | 八 | 模式生物介紹 | 果蠅之雜交與遺傳 | 九 | 性別決定與遺傳 | 錄影帶教學：X + Y = 擠擠擠、複製人 | 十 | 性連遺傳 | 人類色盲之遺傳及檢查 | 十一 | 連鎖遺傳 | 基因圖繪製 | 十二 | 複對偶基因遺傳 | 1.人類 ABO 血型遺傳及檢驗 | 十三 | DNA 的構造 | DNA 紙板模型製作 | 十四 | 核型分析 | 人類男性染色體核型分析 | 十五 | 巨大染色體 | 果蠅唾腺染色體永久切片鏡檢 | 十六 | 染色體計數 | 分蔥根尖壓片製作 | 十七 | 遺傳工程 | 錄影帶教學：無性生殖、疫苗製作 | 十八 | 期末測驗 | 期末測驗 | | | |
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| 十二 | 複對偶基因遺傳 | 1.人類 ABO 血型遺傳及檢驗 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <p>四、參考書目：</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |