國立成功大學 工資管所

一百一十三學年度第二學期授課大綱（進度）

課程名稱：離散數學   **授課**   王逸琳 I-Lin Wang
請下載 zuvio 學生版: https://www.zuvio.com.tw/student   **教師：**   ilinwang@mail
課程代碼：13101946   http://ilin.iim.ncku.edu.tw/ilin
課程網頁   請至 http://moodle.ncku.edu.tw 註冊

開課班級：   工資管系大一二三四

教學時地：   授課：二 3-4, 四 2 [61102]   Office hr:四 2~3 [61324] or by appointment

教學目標：   Train undergraduate students to have better knowledge & skills of discrete mathematics and its applications

課程簡介：   We first introduce several combinatorial problems and techniques, then go through basic sets/relations/functions. 2/3 of the semester will be spent on Graph Theory and Algorithms

教 科 書：   Discrete Mathematics, by Dossey, Otto, Spence, Vanden Eynden, 5th Edition, Addison Wesley (滄海書局) ISBN: 0-321-30515-9

參考書籍：
1. Discrete Mathematics with Graph Theory, by Goodaire, Parmenter, 4th Edition, Prentice Hall (新月圖書)
2. Introduction to Algorithms, by Cormen, Leiserson, Rivest, 4th Edition, MIT Press

評分方式：
1. In-Class Quiz (2 times: **03/11**, **04/22**, each time **20%**)   **40%**
2. Final Exam (**06/03**)   **30%**
3. Homework   **25%**
4. Class Participation   **5%**

先修課程：   Know how to count and some logic.

對學生
建議事項：
1. This course is NOT for your graduate school entrance exam. It is designed for IM students.
2. There will be some math proofs, so be prepared.
3. This semester we will try to use Python to implement some algorithms.

預計進度：
(18 週)
1. Introduction to Combinatorial Problems and Techniques
2. Sets, Relations, and Functions
3. Graphs
4. Trees
5. Counting Techniques
6. Recurrence Relations and Generating Functions
7. Matching
8. Network Flows
9. More about Network Flows

附註：   對於以上內容或修課要求，授課老師可依實際修課情況加以修改。
詳細的評分標準請看「修課作業要求」。

Please register yourself to the following:
1. Teams class group: https://reurl.cc/nqpAz6
2. Zuvio with class number: **13101946** (we will use zuvio for in-class quiz)
3. Please fill out this background form: https://forms.gle/oR8kiiipUWegXnYK8