

國立台灣科技大學資訊工程系

Department of Computer Science and Information Engineering, National Taiwan University of Science
and Technology

博士班資格考試主要內容及參考書目

Reference Books for the Ph.D. Qualification Examination

101 年 11 月 16 日 101 學年度第 3 次系務會議修訂通過

一、計算機演算法 (Computer Algorithms)

參考書目：

- (1) Thomas H. Cormen, Charles E. Leiserson, Ronald L. Rivest and Clifford Stein, "Introduction to Algorithms," The MIT Press; third edition edition (July 31, 2009)

範圍包含：

Growth of functions、Recurrence、Heapsort、Quicksort、Sorting
in Linear Time、Hash Tables、Dynamic Programming、Greedy Algorithms、
Amortized Analysis、B-Trees、Elementary Graph Algorithms、Minimum
Spanning Trees、Single-Source Shortest Paths。

- (2) Robert Sedgewick and Kevin Wayne, "Algorithms (4th Edition)," Addison-Wesley Professional; 4 edition (March 9, 2011)

二、作業系統 (Operating Systems)

參考書目：

- (1) A. Silberschatz, P. B. Galvin, and G. Gagne, "Operating System Concepts," Wiley, 8th Ed., 2008, (前 14 章)

三、計算機結構 (Computer Architecture)

參考書目：

- (1) David A. Patterson and John L. Hennessy, "Computer Organization and Design, Revised Fourth Edition, Fourth Edition: The Hardware/Software Interface (The Morgan Kaufmann Series in Computer Architecture and Design)," (Nov 9, 2011)

四、計算機網路 (Computer Networks)

參考書目：

- (1) Andrew S. Tanenbaum and David J. Wetherall, "Computer Networks (5th Edition)," (Oct 7, 2010)
- (2) James F. Kurose and Keith W. Ross, "Computer Networking: A Top-Down Approach (6th Edition)," (Mar 5, 2012)