

**朝陽科技大學 096學年度第1學期教學大綱**  
**Parallel Computing 平行計算**

<b>當期課號</b>	7455	<b>Course Number</b>	7455
<b>授課教師</b>	羅有隆	<b>Instructor</b>	LO,YU LUNG
<b>中文課名</b>	平行計算	<b>Course Name</b>	Parallel Computing
<b>開課單位</b>	資訊科技研究所博士班二A	<b>Department</b>	
<b>修習別</b>	選修	<b>Required/Elective</b>	Elective
<b>學分數</b>	3	<b>Credits</b>	3
<b>課程目標</b>	在許多科學領域中, 往往需要大量的計算需求與資料密集的應用. 由於這個理由, 平行計算獲得許多的注視, 且是一塊有趣的研究領域. 不同型式的平行系統已可讓使用者來使用. 我們不只處理一般的平行計算問題, 而且也介紹在高效能計算中所出現的種種問題.	<b>Objectives</b>	Applications with large computational requirements and data-intensive applications are rapidly evolving in many scientific domains. For this reason, parallel computing is gaining attention and is an area of interesting study. Different types of parallel systems are available to users. We deal not only with common parallel-processing problems but also with issues that have emerged in high-performance computing.
<b>教材</b>	1. "Parallel Database Techniques," Mahdi Abdelguerfi & Kam-Fai Wong. 2. "Introduction to Parallel Algorithms," C. Xavier and S. S. Iyengar, 高立圖書公司代理。 3. Recent journal/conference papers.	<b>Teaching Materials</b>	1. "Parallel Database Techniques," Mahdi Abdelguerfi & Kam-Fai Wong. 2. "Introduction to Parallel Algorithms," C. Xavier and S. S. Iyengar, 高立圖書公司代理。 3. Recent journal/conference papers.
<b>成績評量方式</b>	1. Midterm exam + Final exam (60%) 2. Presentation & slides (20%) 3. Term paper (20%)	<b>Grading</b>	1. Midterm exam + Final exam (60%) 2. Presentation & slides (20%) 3. Term paper (20%)
<b>教師網頁</b>	<a href="http://www.cyut.edu.tw/~yllo/parallel.htm">http://www.cyut.edu.tw/~yllo/parallel.htm</a>		
<b>教學內容</b>	多處理器的電腦已廣泛的被應用。而多處理器的平行系統，也是被公認最最具擴充性，能支援大型資料庫的使用需求。在這門課裡，我們將介紹平行處理的概念，以及平行架構、平行演算法、平行資料庫原理、資料的切割與置放、平行查詢的處理、平行查詢的排程等等。	<b>Syllabus</b>	Multiprocessor computers have been widely used in all applications. It also has been recognized that multiprocessor system architecture is most scalable to support very large databases. In this class, we will introduce the concepts of parallel processing, parallel architecture, parallel algorithm, parallel database, parallel data allocation, parallel query processing, and parallel scheduling.

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