朝陽科技大學 098學年度第2學期教學大綱
Network Kernel Programming 網路核心程式設計

當期課號	7461	**Course Number**	7461
授課教師	許志宇	**Instructor**	HSU,CHIH YU
中文課名	網路核心程式設計	**Course Name**	Network Kernel Programming
開課單位	資訊與通訊系碩士班一A	**Department**	
修習別	選修	**Required/Elective**	Elective
學分數	3	**Credits**	3
課程目標	使學生掌握閱讀核心的網路程式的方法，以及設計網路程式核心的基本程式方法。	**Objectives**	Learn how to read the program code of the Network programming and design of the Network programming.
教材	UNIX Network Programming, Volume 1, Second Edition: Networking APIs: Sockets and XTI, Prentice Hall, 1998, ISBN 0-13-490012-X. http://www.kohala.com/start/unpv12e.html	**Teaching Materials**	UNIX Network Programming, Volume 1, Second Edition: Networking APIs: Sockets and XTI, Prentice Hall, 1998, ISBN 0-13-490012-X. http://www.kohala.com/start/unpv12e.html
成績評量方式	計畫報告1 20% 計畫報告2 20% 期末考 30% 期中考 30%	**Grading**	Project 1 20% Project 2 20% Midterm Exam 30% Final Exam 30%
教師網頁	http://www.cyut.edu.tw/~tccnchsu/		
教學內容	網路程式設計包括對象是本程式與電腦網路的其他程式聯絡。 一個程式通常稱客戶和其他服務器。 多數作業系統提供事先編譯的程式進行跨網路溝通，舉例TCP/IP的例子是網路客戶端(瀏覽器)和網路伺服器和FTP和Telnet用戶端和伺服器。這門課程描述如何寫網路程式。 Part 1.Introduction and TCP/IP 第 1.章 Introduction 第 2.章The Transport Layer: TCP and UDP Part 2.Elementary Sockets 第 3.章Sockets Introduction 第 4.章Elementary TCP Sockets 第 5.章TCP Client-Server Example 第 6.章I/O Multiplexing: The select and poll Functions 第 7.章Socket Options 第 8.章Elementary UDP Sockets 第 9.章Elementary Name and Address Conversions Part 3.Advanced Sockets 第 10.章IPv4 and IPv6 Interoperability 第 11.章Advanced Name and Address Conversions 第 12.章Daemon Processes and inetd Superserver 第 13.章Advanced I/O Functions 第 14.章Unix Domain Protocols 第 15.章Nonblocking I/O 第 16.章ioctl Operations 第 17.章Routing Sockets	**Syllabus**	Network programming involves writing programs that communicate with other programs across a computer network. One program is normally called the client and the other the server. Most operating systems provide precompiled programs that communicate across a network--common examples in the TCP/IP world are Web clients (browsers) and Web servers, and the FTP and Telnet clients and servers--but this book describes how to write our own network programs. Part 1.Introduction and TCP/IP Chapter 1.Introduction Chapter 2.The Transport Layer: TCP and UDP Part 2.Elementary Sockets Chapter 3.Sockets Introduction Chapter 4.Elementary TCP Sockets Chapter 5.TCP Client-Server Example Chapter 6.I/O Multiplexing: The select and poll Functions Chapter 7.Socket Options Chapter 8.Elementary UDP Sockets Chapter 9.Elementary Name and Address Conversions Part 3.Advanced Sockets Chapter 10.IPv4 and IPv6 Interoperability Chapter 11.Advanced Name and Address Conversions Chapter 12.Daemon Processes and inetd Superserver Chapter 13.Advanced I/O Functions Chapter 14.Unix Domain Protocols Chapter 15.Nonblocking I/O Chapter 16.ioctl Operations Chapter 17.Routing Sockets