班別：資訊工程學系二年甲班(CBB210)　　　　課程學分數：3.00(3.00小時)

授課老師：莊作彬(227002)　　　　　　　　　　　　　　必選修：必

開課序號	2019
科目名稱	計算機組織(BFCZ017)
科目英文名稱	Computer Organization
授課語言	英語
主要教學型態	課堂教學
教學目標	In this course, students will learn about the organizations of computers including CPU and memory design, computer arithmetic and parallel processing. In addition, performance evaluations of CPUs will be given to help the students can more understanding how to choose proper computers for use.
課程綱要	Week 1~2(Lecture) Introductions of computer techniques Week 3~4(Lecture) Computer instructions Week 5~6(Lecture) Computer arithmetic Week 7~8(Lecture) Performance evaluations of CPUs Week 9 Mid-term exam Week 10~11(Lecture) Processor design Week 12~13(Lecture) Pipelining Week 14~15(Lecture) Memory design Week 16~17(Lecture) Parallel processing and auxiliary units Week 18 Final exam All teaching materials and related information will be posted on the NPTU Teaching Platform（教學平台）
核心能力	1. 資訊數理及程式設計能力 0% 2. 資訊軟硬體原理與系統設計應用能力 25% 3. 持續學習及創新能力 25% 4. 理論推導及數據歸納能力 25% 5. 主動發掘、分析及整合解決問題能力 0% 6. 良好語言表達能力及豐富國際觀 25% 7. 負責守法態度、社會關懷及豐富人文涵養 0% 8. 良好溝通技巧與團隊合作精神 0% 9. 完備專案推動與管理能力 0%
授課方式	
評量方式	Final exam 30% Mid-term exam 30% Attendance rate 10%

	Homework 30% These may be updated to fit the real situations.
主要讀本	Digital Design and Computer Architecture, Harris, David Money/ Harris, Sarah L., ISBN：9780123944245 (E-book can be downloaded by NPTU library using certified ID and password) https://webpac.nptu.edu.tw/webpac/content.cfm?mid=454427&m=ss&k0=digit al%20design%20and%20computer%20architecture&t0=k&c0=and&s0=0&w=0&list_ num=10&current_page=1&mt=&at=&sj=&py=&pr=&it=&lr=&lg=&si=1&view=d
參考書目	Computer organization and design :the hardware/software interface /作者 ： Patterson, David A. 其他作者 ： Hennessy, John L.
其他事項	