第01次實習課

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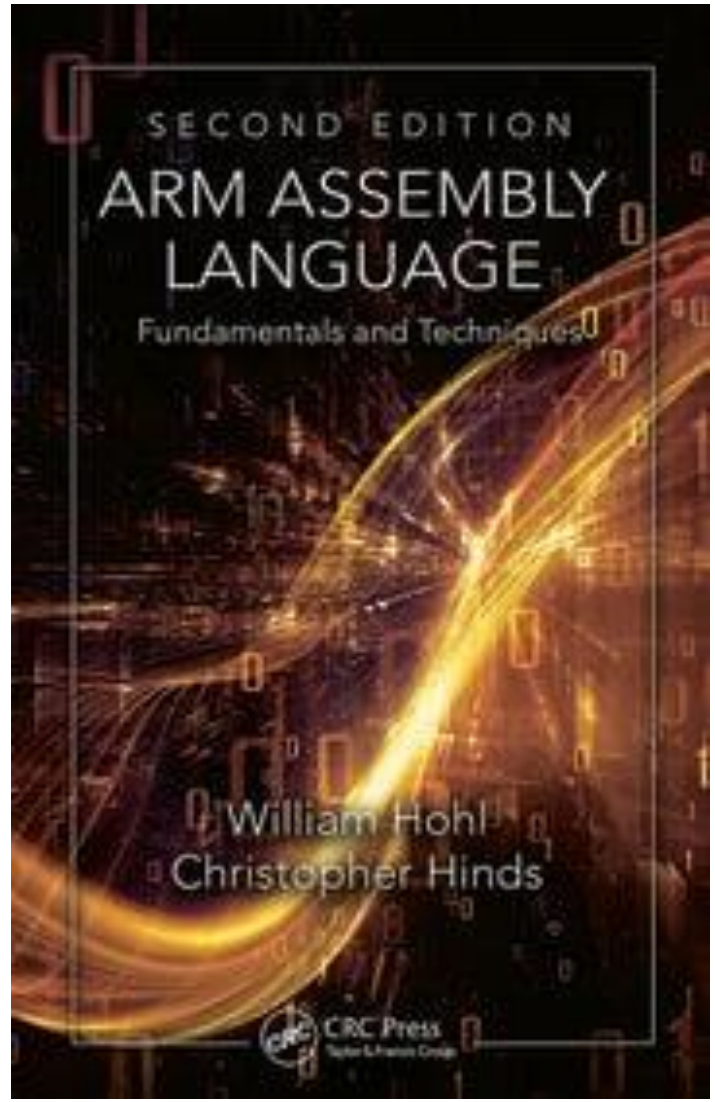
助教資訊

- 助教：林培瑋
- 實驗室：E517(前瞻性混合作業型系統實驗室)
  - 進 E517 實驗室前， **務必敲門後進入** ，聞聽**“請進”**後方可進入 ，找最近的學長姊，說要找誰(“名字”，**門口有座位表**)
- 聯絡方式：
  - Gmail：pw659915@gmail.com
  - Teams：612450097

教科書&教材

- William Hohl and Christopher Hinds, ARM ASSEMBLY LANGUAGE:Fundamentals and Techniques, 2nd Edition, CRC Press, Taylor & Francis Group, 2015

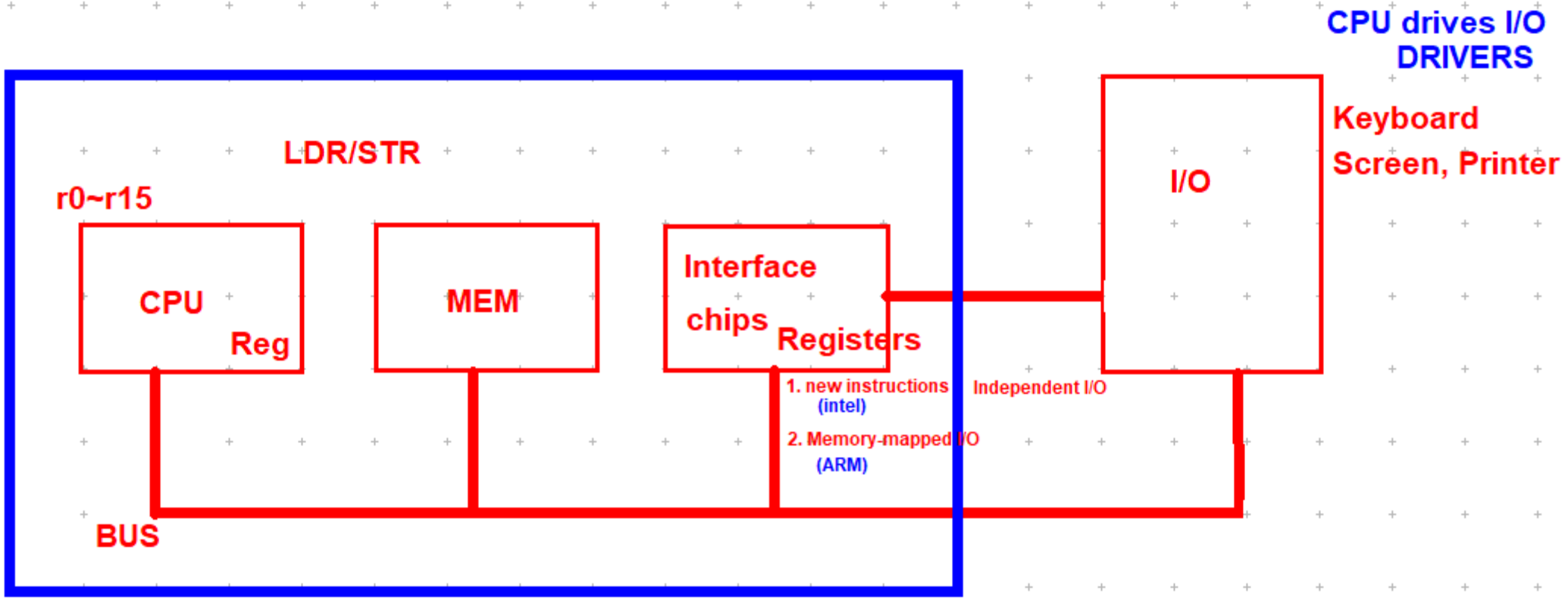


評分標準

- 出席率：10%
- 期中上機考：25%
- 期末上機考：30%
- 其他(作業&實習)：35%
  - 作業(2次)
  - 實習(2次隨堂考)

- 注意事項：上機考、作業、實習課隨堂考皆上傳至**iclass**
  - 以**截圖**的方式呈現，並**框出**題目需求的地方，製作成一份**word**

簡介


CPU drives I/O
DRIVERS
Keyboard
Screen, Printer
I/O
LDR/STR
r0~r15
CPU
Reg
MEM
Interface
chips
Registers
1. new instructions
(intel)
2. Memory-mapped I/O
(ARM)
Independent I/O
BUS

Chapter 16 Memory-Mapped Peripherals

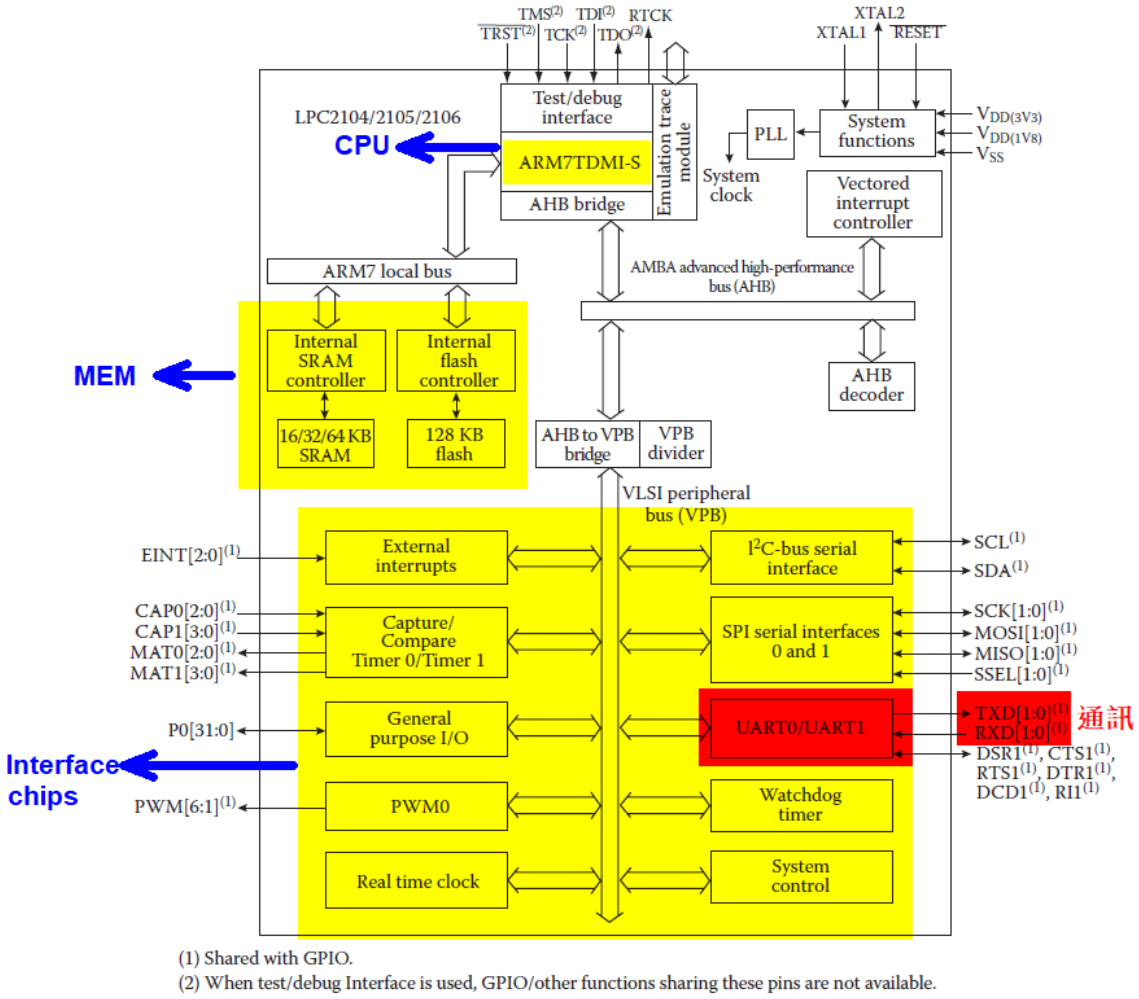


FIGURE 16.1 LPC2104/2105/2106 block diagram. (From Doc. LPC2104–2105–2106–6 Product Data Sheet, NXP Semiconductors, July 2007. With permission.)

16.2.1 THE UART

synchronous(同步)

通用 非同步的 接收 傳送 communication interface

The Universal Asynchronous Receiver/Transmitter (UART) is probably one of the most ubiquitous peripherals found on microcontrollers. It can be used to implement

無所不在的 +computing (LPC2104)

microprocessor(CPU)

Asynchronous

(愈小愈好)
BUFFER

Receiver ——— Transmitter

問題：

1. 舊的資料還沒取，新的資料就覆蓋掉。
2. 新的資料還沒來，取到舊的資料。

rules (synchronization mechanism)

(ex: 送1->收1->送2->收2 ，依照正確的順序，才不會發生錯誤)

=>好比是"通訊協定"

Q&A

Thanks for your attention !!