



University of  
**Nottingham**

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# Course planning for COMP1047

Dr. Heng Yu & Dr. Fazl Ullah

AY2023-24, Spring Semester  
**COMP1047: Systems and Architecture**  
Week 1





# Course Schedule

Week No.	Date From	Topic	Lecture 1	Lecture 2	Lab Group 1	Lab Group 2
1	19-Feb	Intro & Computer Performance	Tuesday 9:00-11:00 DB-A05	Tuesday 13:00-14:00 DB-A05	Thursday 14:00-16:00 IAMET-406	Thursday 16:00-18:00 IAMET-406
2	26-Feb	MIPS Assembly Programming 1				
3	4-Mar	MIPS Assembly Programming 2				
4	11-Mar	MIPS ISA and ALU Design				
5	18-Mar	Single-Cycle CPU Design				
6	25-Mar	Intro to networks and Internet design				
7	1-Apr	The OSI Model and TCP/IP Model				
8	8-Apr	TCP/IP Protocol Suite				
9	15-Apr	Protocols and Sub-netting				
10	22-Apr	Sub-netting and network performance				
11	29-Apr	Internet of Things & Revision				
12	6-May	Q&A				

Topics during Weeks 1-5 (Dr. Heng Yu)

- MIPS Assembly Programming
- Designing an MIPS ISA CPU

Topics during Weeks 6-11 (Dr. Fazl Ullah)

- Computer Networks

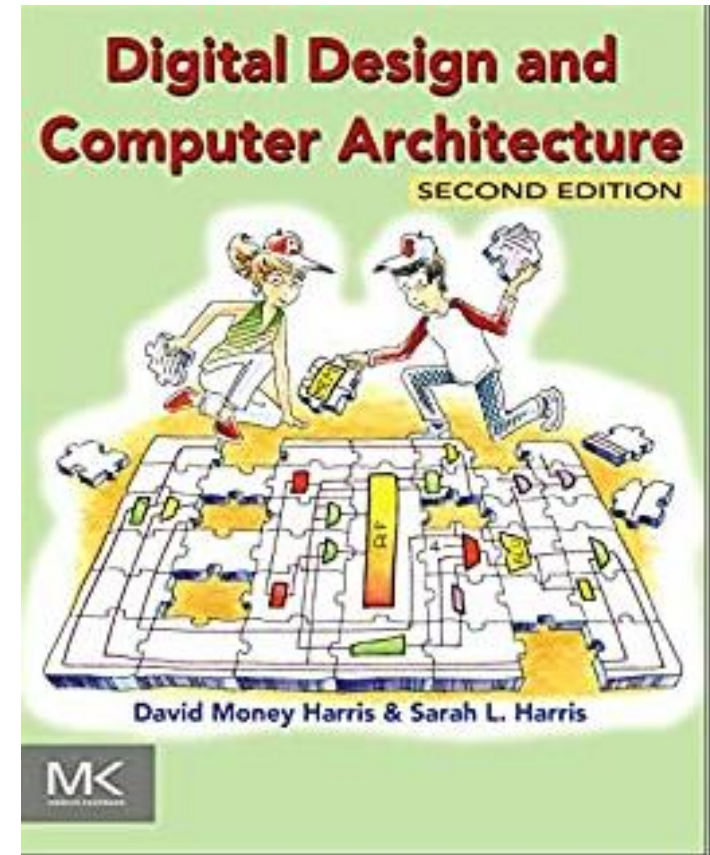
## Textbooks:

- ✓ Digital Design and Computer Architecture, 2nd Edition. ISBN: 9780123944245
- ✓ Computer Organization and Design: The Hardware/Software Interface, 6<sup>th</sup> ed. ISBN: 9780128201091



Digital design and computer architecture,  
2<sup>nd</sup> ed; D. Harris & S. Harris; ISBN:  
9780123944245

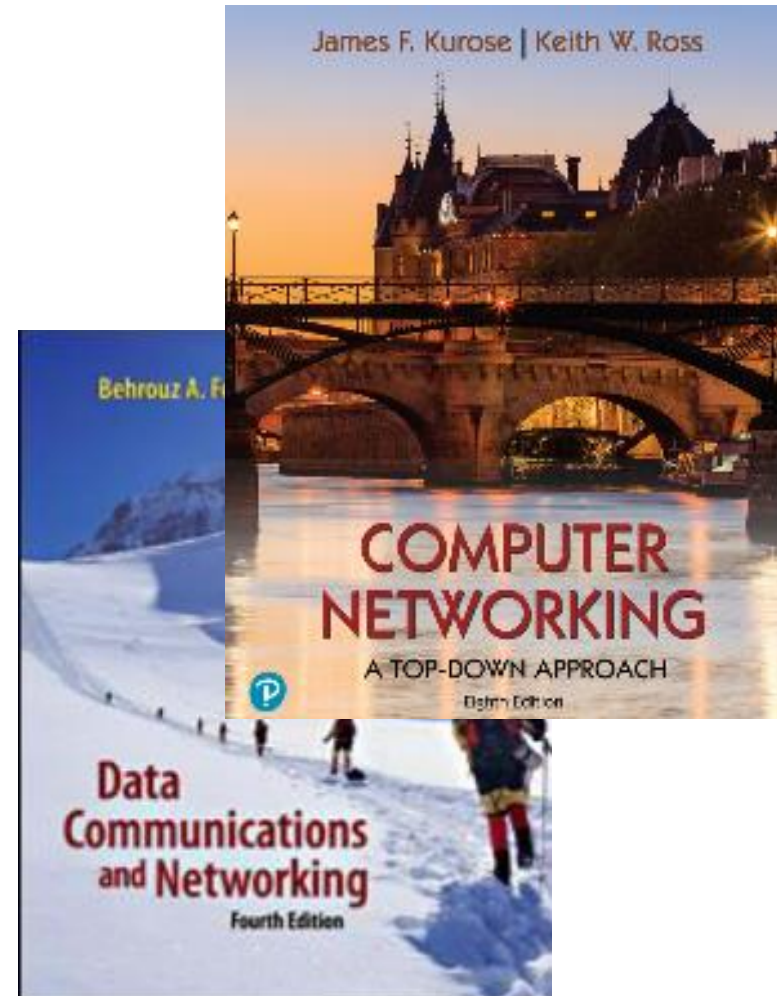
- ✓ Available online and offline in UNNC library ([link](#))
- ✓ A simplified version of the Patterson & Hennessey Book.
- ✓ An ARM RISC ISA version also available in library.





## Textbooks:

- ✓ Computer Networking: A Top-Down Approach. 8th edition. ISBN: 9780133594140
- ✓ Data Communication and Networking. 4th edition. ISBN: 9780073250328





## Lecturer info:

- ✓ Dr. Heng Yu, Ph.D. NUS (2012)
  - Office: PMB426
  - Research field: Intelligent Hardware and Systems
  - [Homepage](#)
  
- ✓ Consultation Hours: Every Tuesday 2-4pm, at PMB426.
  - No need to make appointment in advance.
  - If not in office, please email with another appointment or directly ask questions.
  - Other time slots please email for appointment.



## Lecturer info:

- ✓ Dr. Fazl Ullah
  - Office: PMB443
  - Research field: Security in Networks, Internet-of-Things, etc.
  - [Homepage](#)
  
- ✓ Consultation Hours: Monday 1-3pm



Please raise your hand if

1. Have questions during the lecture
2. I forgot your mid-lecture break
3. I forgot to record the video
  - a. Video recording of lectures and labs will be provided, but
  - b. No online livestreaming
4. Anything else you feel needed to let me know immediately..







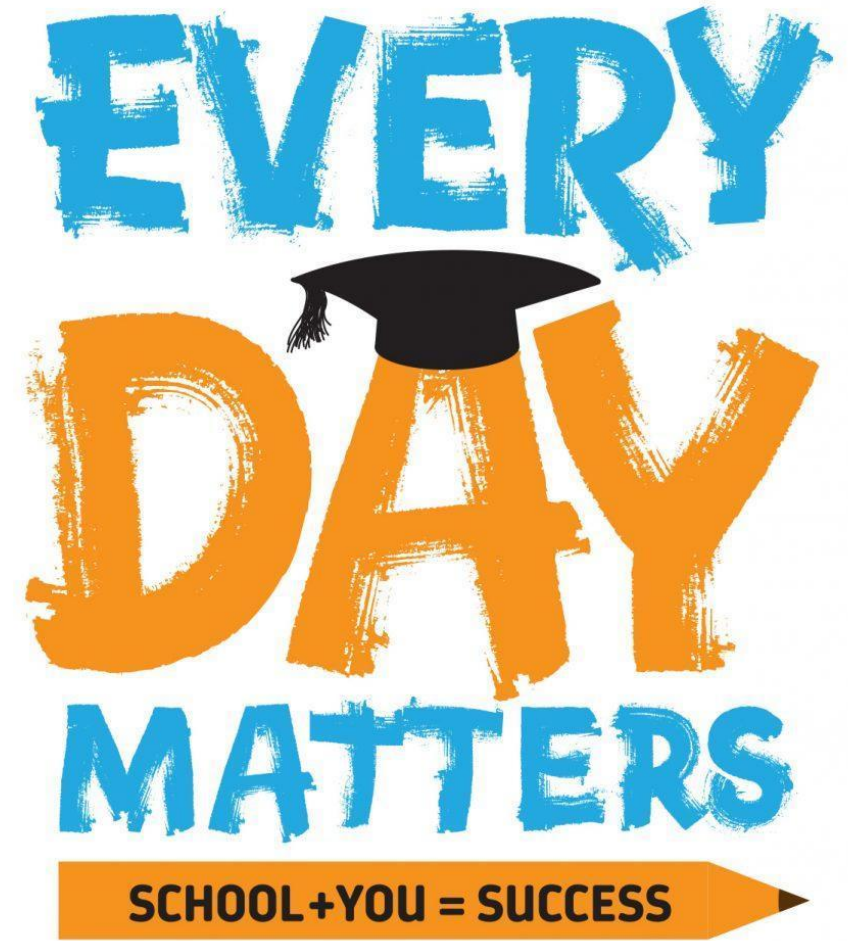
## Lab sessions

1. In each lab we will provide a lab manual, containing several short questions related to the corresponding lecture.
2. Students work on the problems or practice on the software. Solutions provide in mid or at the end of the session.
3. Lecturer and Lab TA will be available for help during the lab sessions.



## Attendance!

1. The AMS system is still used for this semester.
2. Both for lectures and labs.
3. Failed to appear would result in academic warning or worse (zero marks).
4. Out of lecturers' hands – so do attend.





50% coursework + 50% final exam (2-hour)

1. Coursework is divided into two components – Computer Systems and Computer Networks.
2. Coursework will be released at two stages:
  - a. Computer Systems component on Week 4 (approximately)
  - b. Computer Networks component on Week 8 (approximately)
3. Will provide a revision session at Week 11 to help prepare the final exam.



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**Stay Tuned.**