EE6412- Signaling, Switching and Routing in Telecommunication Networks

http://www.cityu.edu.hk/pg/current/course/EE6412.htm
Questions you may ask

- What will I learn in this course? Why?
- Where can I get the course materials?
- What and how will I be assessed?
What will I learn in this course?

- Some important concepts and techniques on signaling, switching and routing for both traditional (telephony) and more advanced (Internet) telecommunication networks
- Hands-on experience (lab) on state of the art technology (VoIP) and its related signaling protocol (SIP)
- Syllabus: COURSE DOCUMENTS > LECTURE NOTES>Overview: Syllabus, Teaching Schedule, etc.
Why should I learn these?

They are all important technologies and areas for the current and the future Internet!!

- Signaling, switching and routing
- Voice over IP, MPLS
- Telephone network (circuit switching) and the Internet (packet switching) => the future Internet (using hybrid circuit and packet switching, e.g. MPLS)
Where can I get the course materials?

- Your CityU “course blackboard”
What will I be assessed?
- **Intended Learning Outcomes**

- Identify the fundamental concepts and enabling technologies about voice over IP, especially the signaling protocol (SIP) and its calling procedure.
- Identify various types of switches and their roles in the telephone network. Apply analytical techniques to compute the cost and blocking probability of various switches.
- Identify various routing schemes and their applications to the real world circuit-switched networks. Apply analytical techniques to compute the blocking probability of various routing schemes.
- Identify the fundamental techniques/concepts of Multi-Protocol Label Switching (MPLS).
How will I be assessed?

- Continuous assessment
  - Course work: 20% (two tests)
  - Laboratory: 20% (at least 75% laboratory attendance to be eligible for a pass)
- Examination: 60% (2 hours)
  - For a student to pass the course, at least 35% of the maximum mark for both the continuous assessment and examination must be obtained