



COMP9332

Network Routing & Switching

Recap



Lecture outline

- Course map
 - List of topics and how they fit together
- Information on the examination
- Discussion on sample exam questions

Foundation topic: Addressing

■ Addressing

- Original classful addresses
- Subnetting
- Classless addressing (CIDR)
- Private addressing and Network address translation
- IPv6

Unicast routing

■ Routing methods and concepts

- Distance vector
- Link state
- Intra-AS and inter-AS routing

■ Unicast routing protocols

- RIP
- OSPF
- BGP

Routing in multi-hop adhoc wireless networks

- AODV
- CDS
- Progress-based next-hop selection, GPSR
- Geocast Routing

CSE, UNSW

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Multicast routing

- Multicast routing
 - Reverse path broadcasting (RPB)
 - Reverse path multicasting (RPM)
 - DVMRP
 - MOSPF
 - Core based tree

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VPN and DTN

- **Ipsec**
 - Ipsec modes
 - ESP
- **IKE**
 - Diffie-Hellman
 - Confidentiality, Authenticity, Integrity, and Service Availability.
- **DTN Routing**

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Advanced Concepts

- **SDN**

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What to study?

- Lecture notes
- Reference textbook reading as directed in the lecture notes
- Additional reading materials as directed in the lecture notes
- All homework (tutorial) problems and exercises as suggested on the course website

Examination (1)

- Format
 - 2 hours
 - 5 questions
 - » Answer all of them

Examination (2)

- Both the intermediate steps and final answers carry marks.
- Open book.
 - You can bring
 - » Books (textbook and any reference books), lecture notes, own notes, reference reading
 - Bring your (UNSW approved) calculators

Examination (3)

- Regarding the questions
 - Could be drawn from any topic covered in the lectures
 - NO programming questions
 - NO negative marking