

TSIN02 – Recommended reading

Below follow literature references to the lecture material presented in the course. If a presented topic is not covered in one of the main three course books below, information about the topic can be found in the additional recommended literature, or by looking it up on the web. This is particularly true for issues presented in Lecture 8 (source/channel models, Shannon limits) and Lecture 10 (Security attacks, Mobile and WLAN security).

Lecture 1: Introduction

Book: TCP/IP Protocol Suite (Fourth Edition)

Chapter 1, sections 1.1 – 1.8

Lecture 2: Network of networks

Book: TCP/IP Protocol Suite (Fourth Edition)

Chapters 2-9 (Less important: 2.2, 3.3, 3.4, 5.2, 7.4, 7.6, 7.8, 8.3, 8.4, 9.4)

Lecture 3: Transport and application layers

Book: TCP/IP Protocol Suite (Fourth Edition)

Section 5.5 (NAT)

Chapters 10, 11 (less important: 11.4, 11.6)

Chapters 13-15 (less important: 13.2, 14.5, 15.10, 15.11, 15.12)

Chapter 17: pages 543-549, sections 17.2, 17.5

Chapter 18, 19 (less important: 19.5, 19.6, 19.7)

Chapter 26: section 26.1 (IPv6)

Lecture 4: Optical Networking – Transmission and Components

Book: Optical Networks – A practical Perspective (Third Edition)

Chapter 1: pages 1-34

Chapter 2: pages 47-51, pages 68-71

Chapter 3: pages 121-154, pages 157-228

Chapter 6: pages 369-407

Lecture 5: Optical Networking – Internet Backbone

Book: Optical Networks – A practical Perspective (Third Edition)

Chapter 7: pages 433-458

Chapter 9: pages 511-530

Chapter 10: pages 573-601

Lecture 6: Network Economics

Book: Networked life: 20 Questions and Answers

Chapter 11: pages 230-234, pages 236-241

Chapter 12: pages 251-257

Lecture 7: Data Center Networks

Book: Networked life: 20 Questions and Answers

Chapter 16: pages 354-364

Lecture 8: Source coding and channel modeling

Book: TCP/IP Protocol Suite (Fourth Edition)

Chapter 25: pages 728-736, sections 25.11, 25.12

Lecture 9: Streaming video

Book: TCP/IP Protocol Suite (Fourth Edition)

Chapter 25: sections 25.4 – 25.8, 25.15

Lecture 10: Network Security

Book: TCP/IP Protocol Suite (Fourth Edition)

Sections 7.7, 19.11

Chapter 29: Sections 29.1, 29.4 (specifically pages 831-833), 29.5, 29.6, 29.9

Chapter 30: Sections 30.1, 30.2, 30.4

Guest lecture

Book: TCP/IP Protocol Suite (Fourth Edition)

Chapter 25: section 25.10 (QoS, Leaky Bucket model)