

Chapter 1. Introduction.

Lecture: 1.3.1-1.3.3, 1.4.1-1.4.3, 1.4.6, Example 1.4.1

Read yourself: 1.1, 1.2, 1.4, 1.4.4, 1.4.5, 1.4.7, 1.5

Problems: 1.2, **1.5**, **1.7**, 1.8, **1.11**, 1.14

Chapter 2. Discrete-time signals and systems.

Lecture: 2.1.1, 2.1.2, 2.1.3, 2.2.1, 2.2.3, Entire 2.3

Read yourself: 2.2.2, 2.2.4

(Chapter 2.4 is not included in the course)

Lecture: 2.5.1, 2.5.2, 2.6.1, 2.6.2, 2.6.3

Read yourself: 2.6.4

Problems: **2.1**, 2.7abc, 2.13, 2.16b, **2.17abcd**, **2.21ab**, **2.35a**, 2.47, **2.61**, **2.62**

Chapter 3. Z-transform.

Lecture: 3.1.1, 3.2 (linear, time-shift, convolution), 3.3

Lecture: 3.4.2, 3.4.3, 3.5.1, 3.5.2, 3.5.3, 3.5.4, 3.5.5

Read yourself: 3.4.4

Lecture: 3.6.1, 3.6.2, 3.6.3

Read yourself: 3.4.4

Problems: **3.2acfgh**, **3.8**, 3.9, 3.10, 3.14abcdg, 3.16ac, 3.35ad, 3.37, 3.40, 3.42, **3.49bd**

Chapter 4. Frequency analysis of signals

Lecture: 4.1.1, 4.1.2, 4.1.3, 4.1.4, 4.2.1, 4.2.2, 4.2.3, 4.2.5, 4.2.6, 4.2.8, 4.2.9

Lecture: 4.3, Figure 4.3.1 is important

Lecture: 4.4.1, Table 4.4 real signals, 4.4.2, Table 4.5: Linearity, Time shift, Convolution, Frequency shift, Modulation, Table 4.6

Problems: **4.6 ab**, 4.8, **4.9abcdg**, **4.10ab**, 4.12c, 4.14, 4.19, 4.23

Chapter 5. Frequency analysis of LTI-systems

Lecture: 5.1.1, 5.1.2, 5.1.3, 5.1.4

Read yourself: 5.2.2, 5.4 introduction part, 5.4.1

Problems: 5.2ab, 5.5, 5.10, 5.11, 5.12, 5.17, 5.21ab, **5.22ab(1)**, 5.23, 5.24, 5.25

Chapter 6. Sampling and reconstruction of signals

Lecture: 6.1, Figure 6.1.1 is important

Read yourself: 6.5.1

Chapter 7. The Discrete Fourier Transform (DFT)

Lecture: 7.1.1, 7.1.2, 7.1.3, 7.2.2, 7.3.1, 7.4

Read yourself: 7.1 introduction part

Problems: **7.1**, 7.8, **7.9**, **7.23bd**