

STK 4400 Autumn 2018: Repairable Systems

The curriculum is basically what has been covered in the lectures. Most of this is found in the downloads, where the following are the most important parts:

Slides 1 – basic definitions and models: all

Slides 2 - statistical inference: all

Slides 3 – imperfect repair and heterogeneity: only p. 1-23 (p. 20-23 you need to know main ideas).

Chapter 7 from *Rausand & Høyland: System Reliability Theory* (for download) is an excellent source for the course. The following list shows the most relevant parts:

7.1: All

7.2: All, except 7.2.3, 7.2.6

7.3: Read only 7.3.1, 7.3.2, 7.3.3

7.4: All

7.5: From beginning to p. 289 “Failure rate reduction model”. Then from start of “Trend Renewal Process” on p. 293 and rest of 7.5.

7.6: All

“Book Chapter 1 and 2” (for download, see Schedule) may be skipped, but of course they contain a lot of valuable theory.

NTNU, October 12, 2018,

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