Curriculum FYS3240 & FYS4240 - spring 2021

- Lecture notes
  - Slides marked with Extra (in the top right corner) are not part of the curriculum (only for information).

- Laboratory exercises
  - Lab 1 – 4 for FYS3240
  - Lab 1 – 5 for FYS4240

- Reference papers:
  - Stochastic models, estimation and control (by Maybeck)
  - An Introduction to the Kalman Filter (by Welch and Bishop)
    - Section 1 and section 3

- Chapter 2 in the book "Fundamentals of Inertial Navigation, Satellite-based Positioning and their Integration"
  - Page 21 to page 32 (but not section 2.2.4 or section 2.2.7)
  - Section 2.3 to 2.3.2 (page 33 to page 39)
  - Section 2.3.9 and section 2.3.10

What is expected and typical exam questions

- Focus is on **principles and fundamental understand** (more than remembering every detail).
- You will **not** be asked to do LabVIEW programing!
- However, it is expected that you understand and can explain very basic LabVIEW code.
- It is expected that you understand (and can write) basic code for Arduino.
- You will **not** be asked to write the Kalman filter equations (general or for a specific system). However, you need to understand the principles of how the Kalman filter works.
- Under the course page for previous years, you will find exam questions and solutions. Note that the course has changed for 2021, causing several questions not to be part of the new curriculum and new topics (navigation, attitude, inertial navigation, Arduino and satellite and missile control) not to be part of previous exam questions.