SD2125 SIGNALS AND MECHANICAL SYSTEMS 2019

Course Schedule.

L = Lecture, TU = Tutorial home assignment, Lab = Laboratory exercise,
SEM = Seminar for home assignments, WT = Written Test

Item	Time	Place	Program
L1	Monday 28 October 15:15-17:00	B1	Course information, Introduction Ch 2: Signal descriptions, time histories. Ch 3: Fourier analysis
L2	Thursday 31 October 13:15-15:00	L1	Ch 3: Fourier analysis Ch 4: Laplace transform, the s-domain
TU	Monday 4 November 10:15-12:00	Hugin, Munin	Tutorial for home assignments
TU	Tuesday 5 November 10:15-12:00	Hugin, Munin	Tutorial for home assignments
L3	Thursday 7 November 14:15-16:00	L1	Ch 5: Time discrete signals, DFT and FFT
L4	Friday 8 November 10:15-12:00	L1	Ch 6: Signals and linear systems
L5	Monday 11 November 08:15-10:00	L1	Ch 7: Correlation
TU	Monday 11 November 10:15-12:00	Hugin, Munin	Tutorial for home assignments
TU	Tuesday 12 November 10:15-12:00	Hugin, Munin	Tutorial for home assignments
Deadline	Wednesday 13 November	Canvas	Deadline for submitting the report for home asignment 1

SEM	Thursday 14 November 13:15-14:00 Thursday 14 November 14:15-15:00 Thursday 14 November 15:15-16:00 Friday 15 November 08:15-09:00 Friday 15 November 09:15-10:00 Friday 15 November 10:15-11:00 Friday 15 November 11:15-12:00 Friday 15 November 14:15-15:00	Hugin Hugin Hugin Hugin Hugin Hugin Hugin Hugin	Seminar: Home assignment 1
WT1	Wednesday 20 November 13:00-15:00	V01, V11, V21 V32,	Written Test 1: Ch 2,3,4,5,6,7
L6	Thurssday 21 November 13:15-15:00	L1	Ch 8: Power spectral density, PSD
L7	Friday 22 November 10:15-12:00	L1	Ch 9: Spectrum analysis with FFT Ch 11: Spectrum analysis with filters
TU	Friday 22 November 13:15-15:00	Hugin, Munin	Tutorial for home assignments
TU	Monday 25 November 10:15-12:00	Hugin, Munin	Tutorial for home assignments
L8	Monday 25 November 13:15-15:00	B3	Ch 10: Digital filters, z-transform Ch 12: Active control of sound
L9	Tuesday 26 November 13:15-15:00	L1	Signal analysis an efficient tool – A showcase from the industry
TU	Thursday 28 November 13:15-15:00	Hugin, Munin	Tutorial for home assignments
TU	Friday 29 November 15:15-17:00	Hugin, Munin	Tutorial for home assignments
Deadline	Monday 2 December 08:00	Canvas	Deadline for submitting the report for home asignment 2

SEM	Monday 2 December 10:15-11:00 Monday 2 December 11:15-12:00 Monday 2 December 13:15-14:00 Monday 2 December 14:15-15:00 Tuesday 3 December 08:15-09:00 Tuesday 3 December 09:15-10:00 Tuesday 3 December 10:15-11:00 Tuesday 3 December 11:15-12:00	Hugin Hugin Hugin Hugin Hugin Hugin Hugin Hugin	Seminar: Home assignment 2
L10	Thursday 5 December 13:15-15:00	L1	Signal analysis applications
Lab	Friday 6 December 08:15-12:00 Friday 6 December 13:15-17:00 Monday 9 December 13:15-17:00 Tuesday 10 December 08:15-12:00 Tuesday 10 December 13:15-17:00 Wednesday 11 December 08:15-12:00 Wednesday 11 December 13:15-17:00	MWL	Lab exercise: Active control of sound
WT2	Friday 13 December 13:00-15:00	V21, V22, V23, V32	Written Test 2: Ch 8,9,10,11,12
EXAM	Monday 13 January 14:00-18:00	Q11, Q13, Q24, Q34, Q36	Ch 2-12

The laboratory exercise wil be held in the MWL lab, Teknikringen 8 ground floor.
List for the seminars and Lab exercise will be published by the course start.

Course material

Applied Signal Analysis by Hans Bodén, Kjell Ahlin and Ulf Carlsson is available as pdf on Canvas. Instructions for the home assignments, lab exercise and examples of old written tests and exams will be put on Canvas.

Homework / project work

Two mandatory, Matlab based, home assignments is part of the course. There will be tutorials where you will be able to get help with solving the home assignments. The results will be reported as written reports submitted through Canvas by Wednesday November 13 for the first project assignment and Monday December 2 for the second one. Seminars for the home assignments will be scheduled right sfter the deadlines. The seminars will be 45 minutes long and 8-12 students from different groups will attend each seminar. It is permitted for two students to submit a joint report.

Examination

Requirements for a passing grade:
1 laboratory exercise.
2 home assignment reports plus seminars.
2 written tests or final exam.

The grade will be set using the result of the written tests. The maximum number of points on each written test is 15. To get the passing grade (E) it is required to get at least 5 points on each written test. In addition the following requirements apply for the total result from both tests:

Grade F (Fail)	below 10 points
Grade Fx	10 points
Grade E	12 points
Grade D	15 points
Grade C	18 points
Grade B	21 points
Grade A	25 points

In the case of grade Fx it is possible to get an E by handing in a correct solution to an extra home assignment.

Examiner

Hans Bodén

Teachers

Lectures:	Hans Bodén, Karl Bolin
Tutorials:	Anders Johansson, Maria del Mar, Hans Bodén, Karl Bolin
Seminars:	Hans Bodén, Karl Bolin, Anders Johansson, Maria del Mar
Lab exercises:	Anders Johansson, Maria del Mar

WELCOME !

Hans Bodén
08/790 80 21
hansbod@kth.se