Week	Date	Topic	HW/project announcement	Due dates
	E1 244 - O Detection and Estimation Theory **course plan**			
1	10 Jan 2022	Introduction		
2	12 Jan 2022	Linear algebra and random processes		
3	17 Jan 2022	Minimum variance unbiased (MVU) estimation		
4	19 Jan 2022	Cramer-Rao lower bound		
5	24 Jan 2022	Cramer-Rao lower bound	**Homework 1**	**Homework 1: 2 Feb 2022**
6	**26 Jan 2022**	**HOLIDAY- NO CLASS**		
7	31 Jan 2022	Generalized MVU		
8	2 Feb 2022	Generalized MVU		
9	7 Feb 2022	Best Linear Unbiased Estimation (BLUE)	**Homework 2**	**Homework 2: 16 Feb 2022**
10	9 Feb 2022	Maximum likelihood estimation (MLE)	**Mini-project 1**	**Mini-project 1: 25 Feb 2022**
11	14 Feb 2022	Maximum likelihood estimation (MLE)		
12	16 Feb 2022	Gaussian linear models and least squares		
13	**21 Feb 2022**	**NO CLASS**		
14	**23 Feb 2022**	**Mid-term exam**		
15	28 Feb 2022	Bayesian estimation - MMSE		
16	2 Mar 2022	Bayesian estimation - MAP	**Homework 3**	**Homework 3: 14 March 2022**
17	7 Mar 2022	Linear MMSE	**Mini-project 2**	**Mini-project 2: 20 March 2022**
18	9 Mar 2022	Kalman filters	**Project**	**Project: 9 April 2022**
19	14 Mar 2022	Detection theory - Neyman Pearson		
20	16 Mar 2022	Bayes detector		
21	21 Mar 2022	Multi-hypothesis testing	**Mini-project 3**	**Mini-project 3: 30 March 2022**
22	23 Mar 2022	Matched filters and energy detectors		
23	28 Mar 2022	Composite hypothesis testing	**Homework 4**	**Homework 4: 6 April 2022**
24	30 Mar 2022	Wald and Rao tests		
25	4 Apr 2022	Locally most powerful test		
26	6 Apr 2022	Sequential probability ratio test		
27	11 Apr 2022	Project presentations		
	25 Apr 2022, 4-7 pm	**Final exam**		

Assessment type	Percentage	
Mini-project 1	10	
Mini-project 2	10	
Mini-project 3	10	
Project	20	
Mid-term	10	
4 x Homework	20	(5 pts. per Homework)
Final	20	
Total	**100**	

Deadline delay policy: Plan your schedule much in advance. You are allowed ONE delayed Mini-project (out of 3) plus ONE delayed Homework (out of 4) of your choosing. No deadline extension requests will be entertained except for genuine medical reasons. Project submission deadline is FIRM.