UNIK 4150 Antennas and radiowave propagation

Lecture and exercise plan 2016 Issued 21 January 2016

Curriculum

- Book "Antennas and propagation for wireless communication systems", second edition, by Simon R. Saunders and Alejandro Aragón-Zavala.
 Published by John Wiley & Sons in 2007, ISBN 978-0-470-84879-1
- Own lectures: Radio front-end and Free-space optics
- Additional material for PhD: agree one or two journal articles for PhD student to present

No	Date	Topic
1	22 January	Ch. 1 & 4.1-3. Introduction
2	29 January	Ch. 2 - 3.4. EM waves & propagation mechanisms. Exercise
3	5 February	Ch. 3.5 & 4.4. Diffraction & Dipole. Exercise
4	12 February	Ch. 4.5 - 5. Array antennas & basic propagation. Exercise
5	19 February	Ch. 6. Terrestrial fixed link (clear air & diffraction). Exercise
6	26 February	Ch. 7. Satellite fixed link (rain & ionosphere). Exercise
7	4 March	Ch. 8-9. Macro cells & shadowing. Exercise
8	11 March	Own lecture on Radio front-end and Free-space optics. Exercise
	18 March	Lecture free
	25 March	Easter holiday
9	1 April	Ch. 10-11. Narrowband & wideband. Exercise
10	8 April	Ch. 12-13-14. Micro & pico & mega cells. Exercise
11	15 April	Ch. 15-16. Mobile system antennas & Overcome narrowband with diversity. Exercise
12	22 April	Guest lecture on MIMO and massive MIMO. Exercise
13	29 April	Wanted topics. Discuss written exercise
	6 May	Lecture free
	13 May	Lecture free
	20 May	Lecture free
	27 May	Oral exam

Calendar for year 2016 (Norway)



February									
Week	Мо	Tu	We	Th	Fr	Sa	Su		
5	1	2	3	4	5	6	7		
6	8	9	10	11	12	13	14		
7	15	16	17	18	19	20	21		
8	22	23	24	25	26	27	28		
9	29								
1:◑ 8:● 15:◐ 22:ਂਂਂਂਂ									

March									
Week	Мо	Tu	We	Th	Fr	Sa	Su		
9		1	2	3	4	5	6		
10	7	8	9	10	11	12	13		
11	14	15	16	17	18	19	20		
12	21	22	23	24	25	26	27		
13	28	29	30	31					
2:◑ 9:● 15:◐ 23:○ 31:◑									

April										
Week	Мо	Tu	We	Th	Fr	Sa	Su			
13					1	2	3			
14	4	5	6	7	8	9	10			
15	11	12	13	14	15	16	17			
16	18	19	20	21	22	23	24			
17	25	26	27	28	29	30				
7:● 14:● 22:○ 30:●										

May										
Week	Мо	Tu	We	Th	Fr	Sa	Su			
17							1			
18	2	3	4	5	6	7	8			
19	9	10	11	12	13	14	15			
20	16	17	18	19	20	21	22			
21	23	24	25	26	27	28	29			
22	30	31								
	6:● 13:● 21:○ 29:●									

June									
Week	Мо	Tu	We	Th	Fr	Sa	Su		
22			1	2	3	4	5		
23	6	7	8	9	10	11	12		
24	13	14	15	16	17	18	19		
25	20	21	22	23	24	25	26		
26	27	28	29	30					
5:● 12:● 20:○ 27:●									