

Course Programme

Digital Communications, Advanced Course (ETTN01), 7.5 hp, 131028 – 131213

First lecture: Monday 28 October (week 44), 15.15 – 17.00 in E:2311.

Project starts in Week 45.

Laboratory lesson: LAB (4 hours) starts (preliminary) on Monday 2 December 2013 (Week 49 = Study week 6).

Application to the laboratory lesson is made on the homepage of this course where you book one available time-slot. Applications can be made one week before the lab starts, or maybe earlier, check Messages!

Messages will be distributed on the homepage of this course, <http://www.eit.lth.se/kurs/ettn01> . Check messages at least twice per week!

Written Examination:

1:st opportunity: Thursday 19 December 2013, 14.00 – 19.00, Vic: 2C-D

2:nd opportunity: April 2014.

3:rd opportunity: August 2014.

Notice: Application is required for the 2:nd and 3:rd opportunity. Applications are made on the homepage of this course.

Course Literature:

- “Introduction to Digital Communications”, compendium August 2006.
- Manual for the laboratory lesson.

The manual for the laboratory lesson will be available at the homepage of this course, (it is not available yet).

You are allowed to use the compendium during the written examination.

This course is defined by the pages and problems given in the course outline given below in this course program, and by the laboratory lesson.

Teacher: Göran Lindell, Room E:2360, email: Goran.Lindell@eit.lth.se

Lectures: Mondays 15.15 – 17.00 in E:2311

Wednesdays 15.15 – 17.00 in E:2311

Exercise class : Tuesdays 15.15 – 17.00 in E:2311

Thursdays 13.15 – 15.00 in E:2311

Time plan for the project and lab:

Study week 1: Study period starts. Try to find a project partner as soon as possible. **Send me an email this week containing names and email to the two persons in the project group!**

Study week 2: Lecture Monday 4 November: **Project info & start-up procedure.**

Study weeks 3+4+5: **Project work.**

Study week 5: **Deadline for the project report** (pdf-format, Email) Thursday 28 November 2013, 17.00.

Study week 6: LAB starts.

Study weeks 6+7: **Project presentations and opponents.**

Study week 7 (131213): Study period ends.

Preliminary Course Outline for the course Digital Communications, Advanced Course (ETTN01), 2013:

<u>Week</u>	<u>Contents</u>
44	<p><u>Lecture (28/10)</u>: Introduction. 5.1 – 5.1.2 (pages 329-341). <u>Exercise (29/10)</u>: Problems 5.1, 5.11, Example 5.2 on page 334, 5.6i, 5.9. <u>Lecture (30/10)</u>: 5.1.2 – 5.1.7 (pages 336 – 360). <u>Exercise (31/10)</u>: 5.15a, 5.19, 5.16b, Example 5.4 on page 343, 5.13a, 5.14.</p>
45	<p><u>Lecture (4/11)</u>: Project info and start-up procedure , 5.2 (pages 360 – 377). <u>Exercise (5/11)</u>: 5.20, 5.18a, 5.21, 5.23, Example 5.20 on page 373, 5.30. <u>Lecture (6/11)</u>: 5.4.1 (pages 380 – 392), Example 5.34, Figure 5.26 on page 393, 5.4.4 – 5.4.6 (pages 396 – 405). <u>Exercise (7/11)</u>: Example 5.23 on page 384, 4.34i), 5.34, 5.33.</p>
46	<p><u>Lecture (11/11)</u>: 3.4.1 (pages 161 – 163), Problem 5.34, 3.4.3 (pages 167-170). <u>Exercise (12/11)</u>: 3.16, Example 5.4 on page 343. 5.34 ((5.133) – (5.138)). <u>Lecture (13/11)</u>: 8.1 – 8.2.1(pages 501– 520). <u>Exercise (14/11)</u>: 8.1, 8.4, 8.6a,b,c,e, 8.7a,b,c,e, 2.32a,b, 8.8a, Example 8.4 on page 512.</p>
47	<p><u>Lecture (18/11)</u>: 8.3 – 8.4 (pages 525 – 537, 548 - 551). <u>Exercise (19/11)</u>: 8.25iii), 8.10, 8.12, 8.29. <u>Lecture (20/11)</u>: 9.1 – 9.2 (pages 581 – 596). <u>Exercise (21/11)</u>: Example 8.7 on page 516, 8.18a, 8.19a. Example 8.16 on page 533, 8.33.</p>
48	<p><u>Lecture (25/11)</u>: 9.2 (591 – 596), Problem 5.34, 7.3(pages 480 – 486). <u>Exercise (26/11)</u>: 8.34, 9.2, 9.3, 9.4, 9.5. <u>Lecture (27/11)</u>: 7.3.21-7.3.2 (pages 484 - 490). <u>Exercise (28/11)</u>: 9.6, 9.7, 9.8, 9.10 Deadline for project report this week on <u>Thursday 28 November, 17.00!</u></p>
49	<p>Lab starts this week! <u>Lecture (2/12)</u>: Summary of the course. <u>Exercise (3/12)</u>: 7.7, 7.9, 7.10a. <u>Lecture (4/12)</u>: Project presentations <u>Exercise (5/12)</u>: Problem solving/Question time</p>
50	<p><u>Lecture (9/12)</u>: Project presentations <u>Exercise (10/12)</u>: Problem solving/Question time <u>Lecture (11/12)</u>: Project presentations <u>Exercise (12/12)</u>: Problem solving/Question time Friday 13 December 2013: Study period ends.</p>
51	<p>Written examination Thursday 19 December 2013, 14.00 – 19.00, EIT-dept.</p>