

## Course Schedule, Grading and Rules

### Week 1 (26-30.09.2022):

- 1) Course rules
- 2) Grading information
- 3) Lecture: FPGA

### Week 2 (03-07.10.2022):

- 1) Lecture: Basic Verilog

### Week 3 (10-14.10.2022):

- 1) AND gate will be implemented with students as a Vivado tutorial .
- 2) Experiment 1 will be worked on by the students at home. Results and problems regarding to Experiment 1 will be discussed in week 4.

### Week 4 (17-21.10.2022):

- 1) Verilog Lecture: if-else, case statements
- 2) Discussion of results and problems of Experiment 1.
- 3) Student will complete experiment report for Experiment 1 and upload it to Ninova.
- 4) Experiment 2 will be worked on by the students at home. Results and problems regarding to Experiment 2 will be discussed in week 5.

### Week 5 (24-28.10.2022):

- 1) Vivado Lecture: constraints, .xdc file editing, pin assignment
- 2) Discussion of results and problems of Experiment 2.
- 3) Student will complete experiment report for Experiment 2 and upload it to Ninova.
- 4) Experiment 3 will be worked on by the students at home. Results and problems regarding to Experiment 3 will be discussed in week 6.

### Week 6 (31.10-04.11.2022):

- 1) Vivado Lecture: generate
- 2) Discussion of results and problems of Experiment 3.
- 3) Student will complete experiment report for Experiment 3 and upload it to Ninova.
- 4) Experiment 4 will be worked on by the students at home. Results and problems regarding to Experiment 4 will be discussed next in week 7.

### Week 7 (14.11-18.11.2022):

- 1) Verilog Lecture: Clock
- 2) Vivado Lecture: Using IP Catalog
- 3) Discussion of results and problems of Experiment 4.
- 4) Student will complete experiment report for Experiment 4 and upload it to Ninova.
- 5) Experiment 5 will be worked on by the students at home. Results and problems regarding to Experiment 5 will be discussed in week 8.

### Week 8 (21-25.11.2022):

- 1) Verilog Lecture: Finite State Machines
- 2) Discussion of results and problems of Experiment 5.
- 3) Student will complete experiment report for Experiment 5 and upload it to Ninova.
- 4) Experiment 6 will be worked on by the students at home. Results and problems regarding to Experiment 6 will be discussed in week 9.

### Week 9 (28.11-02.12.2022):

- 1) Discussion of results and problems of Experiment 6.
- 2) Student will complete experiment report for Experiment 6 and upload it to Ninova.
- 3) Experiment 7 will be worked on by the students at home. Results and problems regarding to Experiment 7 will be discussed in week 10.

### Week 10 (05-09.12.2022):

- 1) Lecture: Matlab
- 2) Verilog lecture: reading from a file and writing into a file with testbench
- 3) Discussion of results and problems of Experiment 7.

- 4) Student will complete experiment report for Experiment 7 and upload it to Ninova.
- 5) Experiment 8 will be worked on by the students at home. Results and problems regarding to Experiment 8 will be discussed in week 11.

**Week 11 (12-16.12.2022):**

- 1) Discussion of results and problems of Experiment 8.
- 2) Student will complete experiment report for Experiment 8 and upload it to Ninova.

**Week 12 (19-23.12.2022):**

- 1) Registration for makeup experiment using form at <https://forms.gle/DfzbytydHNAN73xA6>
- 2) Makeup experiment will be worked on by the students at home. Results and problems regarding to makeup experiment will be discussed in week 13.

**Week 13 (26-30.12.2022):**

- 1) Discussion of results and problems of makeup experiment.
- 2) Student will complete experiment report for makeup experiment and upload it to Ninova.

**Course Rules:**

- 1) Each student should be prepared when he/she enters to the lab session. Topics regarding to each experiment must be reviewed before experiments.
- 2) If a student has a reason for not attending an experiment session which is defined in the general rules of the university, he/she must give a request to the deans office. If the reason is accepted then the student can retake that experiment.
- 3) A student can take only one retake.
- 4) If there is a second missing experiment, he/she will get 0 as the grade.
- 5) If a student's average experiment grade is lower than 35, the student will get VF.
- 6) There are 8 experiments.
- 7) **Two term projects** and **one final project** will be given. Dates of the projects will be determined during the term.
- 8) The final grade of a student is calculated by using Equation (1). The grade of one experiment is calculated by using Equation (2).

**Grading:**

$$\text{Final grade} = 0,4 * \text{Average of the experiment grades} + 0,3 * \text{Average of two term project grades} + 0,3 * \text{Final project grade} \quad (1)$$

$$\text{Experiment grade} = 0,7 * \text{Performance during experiment} + 0,3 * \text{Report} \quad (2)$$