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| week | the topic | Learning outcomes | Type of learning |
| 1 | Number systems and conversion between them | LO1 | a lecture |
| 2 | Boolean algebra and logic gates | LO2 | Lecture + Lab |
| 3 | Simplifying circuits using Karnaugh maps | LO3 | Lecture + Application |
| 4 | Combinational Circuit Analysis and Design | LO4 | a lecture |
| 5 | First short test | LO1, LO2 | a test |
| 6 | Half and full mosque design and comparisons | LO4 | Lecture + Lab |
| 7 | Midterm exam | LO1 – LO4 | a test |
| 8 | Sequential Circuit Concepts – Flip-Flops | LO5, LO6 | a lecture |
| 9 | Design of registers and meters | LO6 | Lecture + Lab |
| 10 | Second short test | LO6 | a test |
| 11 | Applications of ring counters and synchronization | LO6 | a lecture |
| 12 | Digital Integrated Circuit Design Project | LO3 – LO6 | project |
| 13 | Project report writing and analysis | LO3 – LO6 | a report |
| 14 | General review | All LO | review |
| 15 | Final exam | All LO | a test |