Content

Course Code	Course Name	Semester	Theory	Practice	Lab	Credit	ECTS
ING220-A	Digital Electronics	4	2	0	2	3	5

Prerequisites	
Admission Requirements	

Language of Instruction	French
Course Type	Compulsory
Course Level	Bachelor Degree
Objective	This course is a general introduction to digital design concepts. İt aims to show the main differences between analog and digital processing of signals also teach the analysis and design of combinatory and sequential logic circuits.
Content	w1 Intoduction to digital systems w2 Numerical representation w3 Boolean algebra w4 Logic gates w5 Boolean function simplification w6 Combinatory systems w7 Analysis and synthesis of combinatory systems w8 Midterm w9 MSI circuits w10 Programmable logic devices w11 Synchronous sequential systems w12 Synchronous sequential system design w13 Counters and registers w14 Memory elements
References	"Digital Design", Morris Mano

Theory Topics

Week	Weekly Contents
1	Intoduction to digital systems
2	Review of digital systems
3	Boolean algebra
4	Logic gates
5	Boolean function simplification
6	Combinatory systems
7	Analysis and synthesis of combinatory systems
8	Midterm
9	MSI circuits
10	Programmable logic devices
11	Synchronous sequential systems
12	Synchronous sequential system design

Week	Weekly Contents
13	Counters and registers
14	Memory elements