Course Description Form

1. Course Name:

Computer Interfacing

2. Course Code:

3. Semester / Year:

1st semester/2023−2024

4. Description Preparation Date:

5. Available Attendance Forms:

Personal

6. Number of Credit Hours (Total) / Number of Units (Total)

2 hours per week / 2 academic units

7. Course administrator's name (mention all, if more than one name)

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8. Course Objectives

Course Objectives	**Objective 1: Learning the ways of converting real world signals into signals suitable for the computer to deal with and learning the ways of transferring signals and data between the computer and outside world.** **Objective 2: Considering case studies of computer control of some real systems.**

9. Teaching and Learning Strategies

Strategy	It relies mainly on lectures, discussion, and assignments.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	(a1,2) (b1,2)	**Computer architecture and bus**	**Lectures Exercises Tests**	**Home works and Documented examinations**
2	2	(a1,2) (b1,2)	**Structure of bus and ports**		

			in series and parallel		
3	2	(a1,2) (b1,2)	**Timeline, physical and software requirements**		
4	2	(a1,2) (b1,2)	**ISA bus**		
5	2	(a1,2) (b1,2)	**PCI Bus**		
6	2	(a1,2) (b1,2)	**Designing a communication circuit using bus**		
7	2	(a1,2) (b1,2)	=		
8	2	(a1,2) (b1,2)	=		
9	2	(a1,2) (b1,2)	**Using some input and output ports in the computer to design input and output circuits**		
10	2	(a1,2) (b1,2)	**Using some input and output ports in the computer to design input and output circuits**		
11	2	(a1,2) (b1,2)	**Interfacing peripherals to the computer**		

12	2	(a1,2) (b1,2)	**Interfacing peripherals to the computer**		
13	2	(a1,2) (b1,2)	**Requirements for computer Interfacing for data collection and control purposes**		
14	2	(a1,2) (b1,2)			
15	2	(a1,2) (b1,2)	**Notes regarding practical matters that must be taken into account in Interfacing computers and the requirements of real–time systems.**		

11. Course Evaluation

Daily preparation, daily exams and assignments 10 marks
Mid-term exam: 20 marks
Final exam: 70 marks

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Mike Tooley, PC Based Instrumentation and Control, 3rd edition.
Main references (sources)	
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	