2023
TP-153

Course Specification
(Bachelor)

Course Title:	Interactive Spaces
Course Code:	ARCH 430
Program:	Architecture
Department:	Architecture
College:	Architecture and Planning
Institution:	Qassim University

1. Course Identification

Course general Description:

This subject focuses on the interaction between users and the built environment and explores how technology changes the ways we create and use space. The emphasis is on the correlation between architectural design, computational techniques, and mechatronics. Students will be taught innovative ways of studying the built environment (acquiring data to inform the design process) and will be introduced to automated procedures for creating spatial change (using sensor/actuator technologies).

Course Main Objective(s):

In this course, the students will:

- Understanding the relationship between architectural design, computational techniques, and mechatronics.
- Teaching students to think about ways to choose infrastructure (obtaining data to guide the design process)
- Identify with spatial construction planning procedures (using sensor/actuator technologies)
- Teaching students Developing the skills of creative people in studying interactive architecture through spaces.

2. Course Learning Outcomes (CLOs)

Code	Course Learning Outcomes	Code of CLOs aligned with program
1.0	**Knowledge and understanding**	
1.1	▪ Synthesise complex information into a design intent	**K-1**
1.2	▪ Design adaptive spaces equipped with sensor-actuator technologies	**K-1**
2.0	**Skills**	
2.1	▪ Analyse critically dynamic spatial conceptions	**S-1**
2.2	▪ Translate speculative ideas into a built form	**S-3**

Code	Course Learning Outcomes	Code of CLOs aligned with program
	▪ Collaborate effectively with specialist form other disciplines, namely mechanical engineering, computing and information systems	S-4
3.0	Values, autonomy, and responsibility	
3.1		

3. Students Assessment Activities

No	Assessment Activities *
1.	Quizzes, Class questions
2.	Midterm exam.
3.	Assignment & term paper (Final Submission)
4.	Final Exam

4. Learning Resources and Facilities

Essential References	- Fox, Michael & Kemp, Miles (2009) Interactive Architecture. Princeton Architectural Press. - Novak, Marcos (1991) 'Liquid Architectures in Cyberspace', Cyberspace: First Steps. (PDF) - Aarts, and S. Marzano (eds) the new Evertelly, Views on Ambient Intelligence (Rotterdam 010Publishers, 2003) - Bier, H.C., 'Digital Design Strategies', International DESIGN Conference (Dubrovnik: 2004)
Supportive References	
Electronic Materials	**NONE**
Other Learning Materials	**NONE**