Course Description Form

1. Course Name: biosensor

2. Course Code: WBM-52-08

3. Semester / Year: second \ fifth year

4. Description Preparation Date: 19/3/2024

5. Available Attendance Forms:

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

45 hours

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

Name:
Email:

8. Course Objectives

Course Objectives	• **1- Identify the basic parts of the medical sensor and how to ma ufact** • **2- How medical allergens develop over time** • **3- Knowing the types of medical allergens** • **4- Classification of medical allergens according to use** • **5- The purpose of using medical sensors with the human body**

9. Teaching and Learning Strategies

Strategy	1- Theoretical lectures. Using the whiteboard and da a sh 2- Discussion lectures Tutorials. 3- Practical experiments in laboratories. 4- Homework assignments.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning meth od

First	3	Definition, characteristics, principles, and requirements.	Definition, characteristics, principles, and requirements.	theory
Second	3	Electrodes and definition	Electrodes and definition	theory
Third	3	electronic CCT and types.	electronic CCT and types.	theory
Fourth	3	Surface electrodes	Surface electrodes	theory
Fifth	3	Needle electrodes	Needle electrodes	theory
Sixth	3	Transducers and properties.	Transducers and properties.	theory
Seventh	3			theory
Eighth	3	Resistive transducers and thermometric transducers.	Resistive transducers and thermometric transducers.	theory
ninth	3	Medical applications	Medical applications	theory
tenth	3	Piezoelectric	Piezoelectric	theory
eleventh	3	ultrasound transducers	ultrasound transducers	theory
twelveth	3	Mechanical transducers, and medical applications.	Mechanical transducers, and medical applications.	theory
Thirteenth	3			theory
fourteenth	3	Chemical transducers and medical applications	Chemical transducers and medical applications	theory
fifteenth	3	pressure measurement transducers.	pressure measurement transducers.	theory

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparati
etc

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Wang, P., & Liu, Q. (201). Bio Business Media.
Main references (sources)	1- Wang, P., & Liu, Q. (2017 . Bio & Business Media. 2- Introduction to Biomedical ngine
Recommended books and references (scientific journals, reports…)	Standard handbook of biomedical senso s
Electronic References, Websites	https://books.google.iq/books/about/Ha dbook