Republic of Iraq
Ministry of Higher Education & Scientific Research
Supervision and Scientific Evaluation Directorate
Quality Assurance and Academic Accreditation
International Accreditation Dept.

Academic Program Specification Form For The Academic

University: Baghdad
College : Al-Khwarizmi College of Engineering
Number Of Departments In The College : Biomedical Engineering

Dean's Name
Date : / /
Signature

Dean's Assistant For Scientific Affairs
Date : / /
Signature

The College Quality Assurance And University Performance Manager
Date : / /
Signature

Quality Assurance And University Performance Manager
Date : / /
Signature

TEMPLATE FOR PROGRAMME SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

PROGRAMME SPECIFICATION

This Programme Specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It is supported by a specification for each course that contributes to the programme.

1. Teaching Institution	University of Baghdad - Al-Khwarizmi College of Engineering
2. University Department/Centre	Biomedical Engineering
3. Programme Title	Bio-Statistics
4. Title of Final Award	BSc in Biomedical Engineering
5. Modes of Attendance offered	Full time attendance
6. Accreditation	One Semesters per year
7. Other external influences	45 hours in the semester
8. Date of production/revision of this specification	07-02- 2021
9. Aims of the Programme	
By the end of this course, The students will be able to: 1- Know the theory and background simple statistical process with bio-medical signals. 2- Know the applications and operations of collecting bio=medical data, representing biomedical data, Analized biomedical data and get conclusions. 3- learn about the types of biomedical data. 4- investigate the main and standard deviation of biomedical data with frequency distributed table.	

5- Training on Practical examples of biomedical data with the confidence intervals. 6- Learn how to use T-test with significant P-value.

10. Learning Outcomes, Teaching, Learning and Assessment Methods
A. Cognitive goals A1. A2. A3. A4. A5. A6.
B. The skills goals special to the programme . B1. B2. B3.
Teaching and Learning Methods
• Lectures where the students write information presented to them via slide show, overhead or written by the lecturer; • Lectures where the students have some printed notes/handouts and may annotate, or expand these during a spoken lecture; • Question and answer sessions during lectures or staff Office Hours; • Laboratory sessions.
Assessment methods
• Written examinations (Summative assessment); • Oral presentations of individual and group work; • Homework;

• Practical skills will be assessed through laboratory experiments, write-ups, coursework reports, project reports and presentations;
• Presentation skills through group presentations and poster presentations.

C. Affective and value goals
C1.
C2.
C3.
C4.

Teaching and Learning Methods

External lectures from industry or clinicians;
• Feedback given to students during tutorials;
• Question and answer sessions during lectures or staff Office Hours;
• Completion of web-based exercises or computer based laboratory sessions

Assessment methods

Individual written project report(s) of both individual and group projects;
• Practical skills will be assessed through laboratory experiments, write-ups, coursework reports, project reports and presentations;
• Presentation skills through group presentations and poster presentations.

D. General and Transferable Skills (other skills relevant to employability and personal development)
D1.
D2.
D3.
D4.

Teaching and Learning Methods

• Lectures where the students have some printed notes/handouts and may annotate, or expand these during a spoken lecture;

• Lecture material placed on web-pages or other e-learning environment; • External lectures from industry or clinicians; • Question and answer sessions during lectures or staff Office Hours;
Assessment Methods
• Practical skills will be assessed through laboratory experiments, write-ups, coursework reports, project reports and presentations; • Presentation skills through group presentations and poster presentations.

11. Programme Structure				12. Awards and Credits
Level/Year	Course or Module Code	Course or Module Title	Credit rating	
5th		Bio-Statistical	4	Bachelor Degree Requires (x) credits

13. Personal Development Planning
14. Admission criteria .

15. Key sources of information about the programme

Curriculum Skills Map																			
please tick in the relevant boxes where individual Programme Learning Outcomes are being assessed																			
				Programme Learning Outcomes															
Year / Level	Course Code	Course Title	Core (C) Title or Option (O)	Knowledge and understanding				Subject-specific skills				Thinking Skills				General and Transferable Skills (or) Other skills relevant to employability and personal development			
				A1	**A2**	**A3**	**A4**	**B1**	**B2**	**B3**	**B4**	**C1**	**C2**	**C3**	**C4**	**D1**	**D2**	**D3**	**D4**
5th		**Bio-Statistical**																	

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

1. Teaching Institution	University of Baghdad - Al-Khwarizmi College of Engineering
2. University Department/Centre	Biomedical Engineering
3. Course title/code	Bio-Statistics
4. Modes of Attendance offered	BSc in Biomedical Engineering
5. Semester/Year	One Semesters per year
6. Number of hours tuition (total)	45 hours in the semester
7. Date of production/revision of this specification	07-02- 2021
By the end of this course, The students will be able to: 1- Know the theory and background simple statistical process with bio-medical signals. 2- Know the applications and operations of collecting bio=medical data, representing biomedical data, Analized biomedical data and get conclusions. 3- learn about the types of biomedical data. 4- investigate the main and standard deviation of biomedical data with frequency distributed table. 5- Training on Practical examples of biomedical data with the confidence intervals. 6- Learn how to use T-test with significant P-value.	

9· Learning Outcomes, Teaching ,Learning and Assessment Methode
A- Cognitive goals . A1. A2. A3. A4. A5. A6 .
B. The skills goals special to the course. B1. B2. B3.
Teaching and Learning Methods
• Lectures where the students write information presented to them via slide show, overhead or written by the lecturer; • Lectures where the students have some printed notes/handouts and may annotate, or expand these during a spoken lecture; • Question and answer sessions during lectures or staff Office Hours; • Laboratory sessions.
Assessment methods
• Written examinations (Summative assessment); • Oral presentations of individual and group work; • Homework; • Practical skills will be assessed through laboratory experiments, write-ups, coursework reports, project reports and presentations; • Presentation skills through group presentations and poster presentations.
C. Thinking Skills C1. C2. C3. C4.
Teaching and Learning Methods
External lectures from industry or clinicians; • Feedback given to students during tutorials; • Question and answer sessions during lectures or staff Office Hours; • Completion of web-based exercises or computer based laboratory sessions;

Assessment methods
Individual written project report(s) of both individual and group projects; • Practical skills will be assessed through laboratory experiments, write-ups, coursework reports, project reports and presentations; • Presentation skills through group presentations and poster presentations.

D. General and rehabilitative transferred skills(other skills relevant to employability and personal development) D1. D2. D3. D4.

10. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	4		Introduction	Google meet	Google class
2	4		Design a biomedical test	Google meet	Google class
3	4		Sample selection and population	Google meet	Google class
4	4		Average, mean and standard division	Google meet	Google class
5	4		Exam	Google meet	Google class
6	4		Frequency distribution table	Google meet	Google class
7	4		Draw and representing statistical dada	Google meet	Google class
8	4		Confidence interval	Google meet	Google class
9	4		Exam	Google meet	Google class
10	4		P-value	Google meet	Google class
11	4		T-test	Google meet	Google class
12	4		F-test	Google meet	Google class
13	4		ANOVA	Google meet	Google class
14	4		Exam	Google meet	Google class

11. Infrastructure	
1. Books Required reading:	Fundamentals of Biostatistics By Bernard Rosner
2. Main references (sources)	Introduction to biostatistics and its applications in clinical studies By Carles Otero
A- Recommended books and references (scientific journals, reports…).	
B-Electronic references, Internet sites…	Wikipedia

12. The development of the curriculum plan
