

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 Colleges and Institutes*

University: University of Basra  
College : College of Medicine  
Number Of Departments In The College: 11  
Date Of Form Completion : 1/11/2022

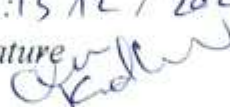
Dean's Name

Date : / /

Signature

Dean's Assistant  
For Scientific  
Affairs

Date : 13 / 12 / 2022

Signature  


The College Quality  
Assurance And University  
Performance Manager

Date : 4 / 12 / 2022

Signature  


Quality Assurance And University Performance  
Manager Date : / /  
Signature

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# TEMPLATE FOR PROGRAMME SPECIFICATION

## HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

### PROGRAMME SPECIFICATION

This Program Specification provides a concise summary of the main features of the program 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 program.

|  |                            |
|--|----------------------------|
| 1. Teaching Institution                              | University of Basra        |
| 2. University Department/Centre                      | Department of Biochemistry |
| 3. Program Title                                     |                            |
| 4. Title of Final Award                              | M.B.Ch.B                   |
| 5. Modes of Attendance offered                       | Annual                     |
| 6. Accreditation                                     |                            |
| 7. Other external influences                         |                            |
| 8. Date of production/revision of this specification | 1/11/2022                  |

#### 9. Aims of the Program

The branch seeks to be known and distinguished in the field of biochemistry and clinical chemistry in Basra in particular and Iraq in general, by explaining and teaching these subjects to students of medical colleges and other supporting colleges, and preparing qualified graduates professionally and academically to carry out advanced laboratory and diagnostic work in health institutions, as well as educational tasks in academic institutions.

## 10. Learning Outcomes, Teaching, Learning and Assessment Methods

### A. Cognitive goals :

A1. Training students on how to identify organic and inorganic chemical compounds with special focusing on their clinical applications.

A2. Providing the students with sufficient knowledge that enable them to understand the biological interactions in the human body at the molecular level.

A3. Practical applications of metabolic processes human body.

A4. Description of diseases and clinical cases resulting from disorders of metabolic processes in the human body.

A5. Description of various biochemical methods used in diagnosing some diseases.

### B. The skills goals special to the programme .

B1. Identifying the biochemical tests that it are necessary to be applied to identify various pathological conditions in order to reach an accurate clinical diagnosis.

B2. Teaching medical chemistry, biochemistry and clinical chemistry to undergraduate students of colleges of medicine, pharmacy and dentistry within university of Basra.

B3. Teaching biochemistry and clinical chemistry to postgraduate students in college of medicine in addition to students of the Iraqi Board of Medical Specialties.

### Teaching and Learning Methods

1. Theoretical Lectures
2. Practical Lessons
3. Small Groups teaching
4. Online Lectures

### Assessment methods

1. Daily assessment
2. Formative examinations
3. Summative Examination
4. Mid-year and Final Examinations

### C. Affective and value goals:

C1. Emphasis on the values of ethical aspects of the doctor- patient relationship

C2 - To highlight the human aspects of the medical profession in the various medical specialties.

## Teaching and Learning Methods

1. Theoretical Lectures
2. Practical Lessons

## Assessment methods

1. Daily assessment
2. Formative examinations
3. Summative Examination
4. Mid-year and Final Examinations

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Identifying the biochemical tests that it are necessary to be applied to identify various pathological conditions in order to reach an accurate clinical diagnosis.

D2. Recognizing the biochemical tests that it are necessary to be applied in various emergency situations.

D3. To highlight the importance of the accuracy of the results of laboratory analyzes.

Teaching and Learning Methods

1. Theoretical Lectures
2. Practical Lessons
3. Small Groups teaching
4. Online Lectures

Assessment Methods

1. Daily assessment
2. Formative examinations
3. Summative Examination
4. Mid-year and Final Examinations

11. Program Structure

| Level/Year           | Course or Module Code | Course or Module Title   | Credit rating |   | 12. Awards and Credits                 |
|----------------------|-----------------------|--|---------------|---|--|
|                      |                       |  | Theoretical   | Practical                                     |  |
| 1 <sup>st</sup> Year | 1.                    | Medical Chemistry  | 30            | 30  | Bachelor Degree Requires ( x ) credits |
|                      | 1.A                   | Inorganic Chemistry  | 7             | 9<br>( normal inorganic urinary constituents) |  |
|                      |                       | <ul style="list-style-type: none"> <li>• Radioactivity and medical uses of radioactive isotopes</li> </ul> | 2             | -   |  |

|     |   |    |   |
|-----|---|----|---|
|     | <ul style="list-style-type: none"> <li>Ions in living system and: their importance</li> </ul>   | 2  | -                                       |
|     | <ul style="list-style-type: none"> <li>Air pollution.</li> <li>Aerosole</li> <li>Smoke.</li> <li>Hydrocarbons pollution.</li> <li>Pollution due to hospitals and industries</li> <li><b>Physiological effects of chemical materials on living system.</b></li> <li>Prevention and cure of air pollution.</li> </ul> | 3  | -                                       |
| 1.B | <b>Analytical Chemistry</b>   | 8  | 12 (titration )                         |
|     | <ul style="list-style-type: none"> <li>Solutions and methods of expressing concentrations</li> </ul>  | 2  | -                                       |
|     | <ul style="list-style-type: none"> <li>pH,acids, bases and salt of medical interests</li> </ul>   | 2  | -                                       |
|     | <ul style="list-style-type: none"> <li>Buffers and buffer systems of physiological importance</li> </ul>  | 2  | -                                       |
|     | <ul style="list-style-type: none"> <li>Colloidal Chemistry and biological systems, Dialysis and living systems.</li> </ul>  | 2  | -                                       |
| 1.C | <b>Organic Chemistry</b>  | 15 | 9 (normal organic urinary constituents) |
|     | <ul style="list-style-type: none"> <li>Alkanes, alkenes and alkynes</li> </ul>  | 3  | -                                       |

|                      |      |                                    |    |    |  |
|----------------------|------|------------------------------------|----|----|--|
|                      |      | • Aromatic and cyclic hydrocarbons | 3  | -  |  |
|                      |      | • Alcohols                         | 3  | -  |  |
|                      |      | • Aldehydes and Ketones            | 3  | -  |  |
|                      |      | • Carboxylic Acids                 | 2  | -  |  |
|                      | 2    | Biochemistry                       | 30 | 30 |  |
|                      | 2.A. | Carbohydrate Chemistry             | 5  | 10 |  |
|                      | 2.B  | Protein chemistry                  | 5  | 10 |  |
|                      | 2.C  | Lipid Chemistry                    | 5  | -  |  |
|                      | 2.D  | Nucleic Acids Chemistry            | 3  | -  |  |
|                      | 2.E  | Enzyme Chemistry                   | 6  | 10 |  |
|                      | 2.F. | Biological Membranes Chemistry     | 4  | -  |  |
|                      | 2.G  | Muscle Chemistry                   | 2  | -  |  |
| 2 <sup>nd</sup> Year |      | Biochemistry                       | 90 | 60 |  |
|                      | 1.   | 1 <sup>st</sup> Coarse             | 45 | 30 |  |
|                      |      | • Vitamins                         | 7  | -  |  |
|                      |      | • Diagnostic enzymology            | 4  | 12 |  |
|                      |      | • Carbohydrate Metabolism          | 12 | 6  |  |
|                      |      | • Diabetes Mellitus                | 3  | 6  |  |
|                      |      | • Nutrition                        | 5  | 3  |  |
|                      |      | • Plasma Proteins                  | 4  | 3  |  |
|                      |      | • Amino acid metabolism            | 6  |    |  |



|  |    |                          |    |    |  |
|--|----|--------------------------|----|----|--|
|  |    | • Hemoglobin Metabolism  | 4  | -  |  |
|  | 2. | 2 <sup>nd</sup> Coarse   | 45 | 30 |  |
|  |    | • Hormones               | 10 | 6  |  |
|  |    | • Lipid Metabolism       | 11 | 3  |  |
|  |    | • Nucleotides Metabolism | 3  | 3  |  |
|  |    | • Acid base balance      | 2  | -  |  |
|  |    | • Liver Function Tests   | 4  | 6  |  |
|  |    | • Renal Function Tests   | 3  | 9  |  |
|  |    | • Antioxidants           | 2  | -  |  |
|  |    | • Xenobiotics            | 2  | -  |  |
|  |    | • Cancer Chemistry       | 4  | -  |  |
|  |    | • Mineral Metabolism     | 4  | 3  |  |

### 13. Personal Development Planning

The faculty members of the department contribute in the research and advisory fields to other scientific branches in the College of Medicine and other colleges of the university, and also to the health institutions in Basra governorate with regard to the field of clinical biochemistry and laboratory tests.

### 14. Admission criteria .

- A. Central admission : for undergraduate studies
- B. Direct application for postgraduate studies - according to the Average and Competitive examination.

### 15. Key sources of information about the programme

#### A- Textbooks

1-Medical Chemistry : Chemical Basis of Life

2- Biochemistry : Lippincott's Illustrated Reviews: Biochemistry

3- Laboratory manual of Practical Biochemistry

B- Researches and published studies on approved Journals and Scientific Web sites.



