# TEMPLATE FOR COURSE SPECIFICATION

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| HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW |

**COURSE SPECIFICATION**

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| 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. |

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| 1. Teaching Institution | Al‐Nahrain University |
| 2. University Department/Centre | Department of Chemistry |
| 3. Course title/code |  Biochemistry/CHEM451 |
| 4. Modes of Attendance offered |  By send question through google classroom |
| 5. Semester/Year | First Semester/ 2022-2023 |
| 6. Number of hours tuition (total) | 45 hours |
| 7. Date of production/revision of this specification | 2022/9/7 |
| 8. Aims of the Course |
| 1. To let the student know about the fundamental principle of clinical biochemistry
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| 1. Focus on how hormones work and clinical analysis of some enzymes
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| 9· Learning Outcomes, Teaching ,Learning and Assessment Methode |

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| 1. Cognitive goals .

A1. Introduce students to basic concepts related to biochemistryA2. Raising awareness and educating students about diseases and analysis ti distinguish them |
| B. The skills goals special to the course. B1. Scientific skillB2. Analytical and inferential skillsB3. Development skills |
| Teaching and Learning Methods |
| 1. Providing students with basics and topics related to thinking outcome
2. Discuss the topic of lesson that required thinking and analysis
3. Raise a set of thinking question during lectures, which increases and motivates student to analyze and conclude
4. Giving student homework that requires self-explanation
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| Assessment methods |
| 1. Oral exams for the pervious lecture
2. Participation scores for competition questions related to the subjects
3. Specific grades for homework
4. Semesters exams
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| C. Affective and value goalsC1.enable student to solve problems related to the intellectual frameworks of the lecture.C2. Enable students to thinks intellectual questions from lectureC3. The link between lecture curriculum, and practical applications, especially with our daily life |
| Teaching and Learning Methods |
| 1. Providing students with basics and additional topics relate to thinking outcome
2. Discussing the topics of lesson that require analysis and thinking
3. Raising a set of thinking questions during the lectures, which increases and motivates students to analyze and conclude
4. Giving student homework that requires self-explanation
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| Assessment methods |
| 1. Oral exams for the pervious lecture
2. Participation scores for competition questions related to the subjects
3. Specific grades for homework
4. Semesters exams
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| D. General and rehabilitative transferred skills(other skills relevant to employability and personal development)D1. Follow up on scientific development by obtaining acquinted with new book and search via Internet.D2. Participation in scientific conferences inside and outside of countryD3. Participation in workshop inside and outside of country |

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| 10. Course Structure |
| **Week** | **Hours** | **ILOs** | **Unit/Module or Topic Title** | **Teaching Method** | **Assessment Method** |
| 1 | 2 hours | Introducing the students to an Endocrinology | **Endocrinology** | Explanation by using clarify tools |  Short Oral and written exams |
| 2 | 2 | Introducing the students to an Pituitary Gland | **Pituitary gland** | Explanation by using clarify tools | Short Oral and written exams |
| 3 | 2 | Introducing the students to hormones and their receptors | **Hormones and receptors** | Explanation by using clarify tools | Short Oral and written exams |
| 4 | 2 | Introducing the students to adrenal gland and its disease | **Adrenal Gland** | Explanation by using clarify tools | Short Oral and written exams |
| 5 | 2 | Introducing the students to thyroid gland and its disease | **Thyroid Gland** | Explanation by using clarify tools | Short Oral and written exams |
| 6 | 2 | Written Mid exam | **Mid Exam** |  | exam |
| 7 | 2 | Introducing to body fluid and electrolytes | **Body fluid and electrolytes** | Explanation by using clarify tools | Short Oral and written exams |
| 8 | 2 | Introducing to Kidney | **Kidney** | Explanation by using clarify tools | Short Oral and written exams |
| 9 | 2 | Introducing to kidney and sodium electrolytes | Kidney and electrolytes(Sodium) and its disease | Explanation by using clarify tools | Short Oral and written exams |
| 10 | 2 | Introducing to kidney and potassium electrolytes | Kidney and electrolytes(Potassium) and its disease | Explanation by using clarify tools | Short Oral and written exams |
| 11 | 2 | Introducing to Calcium, Phosphate, Magnesium  | Calcium, Phosphate, Magnesium and their disease | Explanation by using clarify tools | Short Oral and written exams |
| 12 | 2 | Introducing to Kidney diseases | **Kidney disease** | Explanation by using clarify tools | Short Oral and written exams |
| 13 | 2 | Introducing to Liver and related diseases | **Liver and its function test** | Explanation by using clarify tools | Short Oral and written exams |
| 14 | 2 | Written Mid exam | **Mid exam** |  | exams |

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| 11. Infrastructure |
| 1. Books Required reading: | Clinical Biochemistry, Zalva, 2nd  edition  |
| 2. Main references (sources) |  |
| A- Recommended books and references (scientific journals, reports…). | Implicitly with the sources |
| B-Electronic references, Internet sites… | **Electronic book**Clinical Biochemistry, Allan Gaw, Robert A. Crowan, Denis. St. J.O’Reilly, Micheal J. Stewart and James Shepherd, 2nd edition, Churchill livingstone, UK |
| 12. The development of the curriculum plan |
| Development and updating are carried out according to the information available from modern sources, in addition to developing illustrations to increase the student's understanding and awareness of the course material |