# 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 | Chemistry Department |
| 3. Course title/code | Kinetic chemistry  |
| 4. Modes of Attendance offered | Attendance |
| 5. Semester/Year | First semester/2022-2023 |
| 6. Number of hours tuition (total) | 2+4(lab)=6 |
| 7. Date of production/revision of this specification | 2022-2023 |
| 8. Aims of the Course learn the main idea of kinetic  |
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| The aim of this course is understanding the kinetic of the reaction  |
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| 9· Learning Outcomes, Teaching ,Learning and Assessment Methode |

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| A- Cognitive goals . A1.Determine the rate law of the reactionA2.order of the reactionA3.Mechanism of the reactionA4. The effect of the temperature on the reaction rate A5.A6 . |
| B. The skills goals special to the course. B1.B2.B3. |
| Teaching and Learning Methods |
| Using the black board  |
| Assessment methods |
| Quick quiz, exam every 3 weeks  |
| C. Affective and value goals C1.Questions during the lectureC2. Make a group to solve the problemC3. Tutorials C4. |
| Teaching and Learning Methods |
| Give introduction about each lecture before start,Ask questions, do a short exam |
| Assessment methods |
| exam |

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

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| 10. Course Structure |
| Week | Hours | ILOs | Unit/Module or Topic Title | Teaching Method | Assessment Method |
| First week | 2 hours for theoretical and lab is 2 hours for each group |  | Will reviewing previous information about thermodynamic and gases which have been taken in the second year. | In all my lecturer will use the black board because physical chemistry need to solve lots of problems and equations. | Questions to the student |
| Second week and third week |  |  | Start with introduction of the chemical kinetic and the main idea will cover during this course and the relation with the thermodynamic |  |  |
| Four week |  |  | Rate law |  |  |
| Five week |  |  | Integrated of rate law |  |  |
| Six week |  |  | The difference of order and molecularity and start with pseudo first order |  |  |
| Seven week |  |  | Continue with the order of the reaction and study the effect of the temperature on the order of the reaction |  |  |
| Eight week |  |  | Mechanism of the reaction |  |  |
| Nine week to the end  |  |  | Type of reactions and theories. |  |  |

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| 11. Infrastructure |
| 1. Books Required reading: | Physical chemistry (Peter At kins) |
| 2. Main references (sources) | Physical chemistry  |
| A- Recommended books and references (scientific journals, reports…). | Up to the student  |
| B-Electronic references, Internet sites… | - |
| 12. The development of the curriculum plan |
| Extend the hours of the lecture up to 3 hours  |

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