# Course Description Form

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| 1. Course Name: |
| Inorganic Pharmaceutical Chemistry |
| 2. Course Code: |
| Phpch24_312 |
| 3. Semester / Year: |
| 1st Semester/3rd Year |
| 4. Description Preparation Date: |
| 4/09/2024 |
| 5. Available Attendance Forms: |
| Students' signatures on attendance sheets |
| 6. Number of Credit Hours (Total) / Number of Units (Total) |
| 2 hours theory + 2 hours practical (60) / 3 units |
| 7. Course administrator's name (mention all, if more than one name) |
| Theory |
| Name: Assist. Prof. Dr. Ahmed AJ Mahmood<br>Email: ahmedsot@uomosul.edu.iq<br>Name: Assist. Prof. Dr. Wejdan Nazar<br>Email: wejdan.nazar@uomosul.edu.iq |
| Practical |
| Name: Lec. Sema'a Mahmood<br>Email: seem_univ@uomosul.edu.iq<br>Name: Lec. Bara Aldabagh<br>Email: bara.aldabagh@uomosul.edu.iq |
| 8. Course Objectives |

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| **Course Objectives** | • Introducing the students to atoms and elements<br>• Explaining the role of inorganic products in pharmacy |

| 9. Teaching and Learning Strategies | |
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| **Strategy** | • Theory lectures with teaching aids such as videos and diagrams<br>• Practical sessions where students actively perform experiments |

10. Course Structure

| Week | Hours | Required Learning Outcomes | Unit or subject name | Learning method | Evaluation method |
|---|---|---|---|---|---|
| 1-3 | 6 | • Understanding the structure of atoms and molecules | • Atomic and molecular structure/ Complexation | • Lectures | • Paper-based exams |
| 4-6 | 6 | • Understanding the concept of essential and non-essential elements | • Essential and trace ions: Iron, copper, sulfur, iodine<br>• Non-essential ions: Fluoride, bromide, lithium, gold, silver and mercury<br>• Gastrointestinal agents: Acidifying agents | • Lectures | • Paper-based exams |
| 7 | 2 | • The chemistry of antacids | • Antacids | • Lectures | • Paper-based exams |

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| 8+9 | 4 | • Miscellaneous inorganic agents | • Protective adsorbents<br>• Topical agents<br>• Dental agents | • Lectures | • Paper-based Exams |
| 10-15 | 12 | • Understanding the concept of radio therapeutics | • Radiopharmaceutical preparations<br>• Radio opaque and contrast media | • Lectures | • Paper-based Exams |
| 1-6 | 12 | • Acid base reactions | • Acid base reactions | • Practical | • Lab-based unknown and quiz |
| 7+8 | 4 | • Assay of sodium benzoate | • Assay of sodium benzoate | • Practical | • Lab-based unknown and quiz |
| 9+10 | 4 | • Assay of Borax | • Assay of Borax | • Practical | • Lab-based unknown and quiz |
| 11+12 | 4 | • Assay of citric acid | • Assay of citric acid | • Practical | • Lab-based unknown and quiz |
| 13+14 | 4 | • Assay of magnesium hydroxide | • Assay of magnesium hydroxide | • Practical | • Lab-based unknown and quiz |
| 15 | 2 | • Assay of ammoniated mercury | • Assay of ammoniated mercury | • Practical | • Lab-based unknown and quiz |

11. Course Evaluation

- 20 M Theoretical assessment (paper-based midterm exam, attendance)
- 20 M Practical assessment (attendance, quizzes, unknows, reports)
- 60 M paper-based theoretical final exam

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- 100 M total

12. Learning and Teaching Resources

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| Required textbooks (curricular books, if any) | Block, Roche Soine and Wilson, Inorga Medicinal and Pharmaceutical Chemistry,198 |
| Main references (sources) | Wilson and Gisvold Textbook of Orga medicinal and Pharmaceutical chemis Delgado JN, Remers WA, (E 12thedition,2010<br><br>Laboratory Handbook for Practical Inorga Pharmaceutical Chemistry adopted by department. |
| Recommended books and references (scientific journals, reports...) | |
| Electronic References, Websites | |
| Update percentage | 5 % change in theoretical lectures |