

ONLINE CHEMISTRY COURSE OUTLINE

Secondary School & IGCSE Chemistry Programme

Course Description

This course provides a comprehensive foundation in Chemistry for secondary school students and learners preparing for IGCSE Chemistry examinations. It develops conceptual understanding, problem-solving ability, experimental awareness, and examination confidence through interactive online lessons, simulations, quizzes, and structured assessments.

Course Objectives

- 1 Understand fundamental chemical principles
- 2 Apply scientific reasoning to solve chemical problems
- 3 Interpret experimental data
- 4 Write balanced chemical equations
- 5 Perform quantitative chemical calculations
- 6 Relate chemistry concepts to real-life applications
- 7 Prepare effectively for IGCSE examinations

Target Learners

- 1 Secondary school students (JS3 – SS3 / Grade 7–11)
- 2 IGCSE Chemistry candidates
- 3 Students needing foundation or exam revision
- 4 Homeschool and international learners

Course Duration

- 1 24 – 36 Weeks (Flexible Online Schedule)
- 2 2–3 Classes per Week
- 3 60–90 minutes per session

Course Modules

- 1 Introduction to Chemistry
- 2 Experimental Techniques
- 3 Atomic Structure

- 4 Periodic Table
- 5 Chemical Bonding
- 6 Chemical Formulae & Equations
- 7 Mole Concept & Stoichiometry
- 8 Acids, Bases and Salts
- 9 Energy Changes
- 10 Rates of Reaction
- 11 Chemical Equilibrium
- 12 Electrochemistry
- 13 Metals
- 14 Air and Environment
- 15 Organic Chemistry
- 16 Practical Chemistry (Virtual & Theory)

Assessment Structure

- 1 Weekly Quizzes
- 2 Homework Assignments
- 3 Practical-Based Questions
- 4 Mid-Course Test
- 5 Mock IGCSE Examination
- 6 Final Assessment

Teaching Methodology

- 1 Live Interactive Lessons
- 2 Digital Whiteboard Explanations
- 3 Simulations & Demonstrations
- 4 Exam Question Practice
- 5 Past Paper Discussions
- 6 Personalized Feedback

Learning Resources

- 1 IGCSE Chemistry Past Questions
- 2 Worksheets & Practice Sets
- 3 Recorded Lessons
- 4 Virtual Lab Simulations

Expected Outcomes

- 1 Build strong chemistry fundamentals
- 2 Improve analytical thinking
- 3 Gain exam confidence
- 4 Achieve high performance in school & IGCSE exams