



Consulting and Training | Reach New Heights

Course Name

Fundamentals of Chemistry

Sector Name

Oil, Gas and Chemical

Document Type

Generated by Boostlab

[Click Here To Visit Course](#)

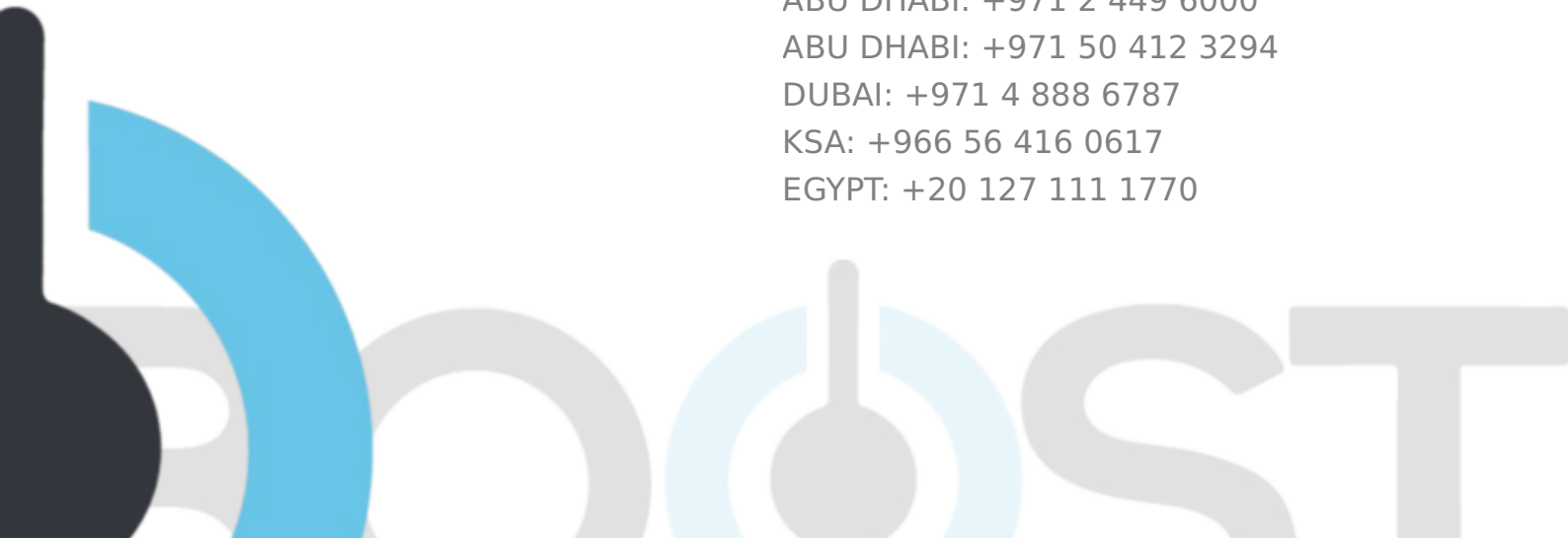
ABU DHABI: +971 2 449 6000

ABU DHABI: +971 50 412 3294

DUBAI: +971 4 888 6787

KSA: +966 56 416 0617

EGYPT: +20 127 111 1770



Fundamentals of Chemistry

Course Introduction

The fundamentals of chemistry

The fundamentals of chemistry are essential for understanding the composition, structure, and changes of matter in the world around us. Whether in scientific research, industrial processes, or everyday applications, chemistry provides a foundation for numerous scientific disciplines and innovations. This course is designed to give learners a strong grasp of basic chemical principles, enabling them to comprehend and analyze the behavior of substances and reactions. A solid foundation in chemistry is essential for further studies and professional applications in science, engineering, healthcare, and technology sectors.

This training program covers key areas of chemistry, from atomic structure and chemical bonding to reaction types, stoichiometry, and the properties of matter. Participants will engage in interactive discussions, hands-on activities, and problem-solving exercises to reinforce learning. The course will also address practical laboratory techniques, safety protocols, and real-world applications of chemical principles.

Training Course Methodology

This course is designed to be interactive and participatory, and includes various learning tools to enable the participants to function effectively and efficiently. The course will use sessions, exercises, case applications, and presentations about proven-by-practice methods, new insights, and ideas about the topic and its effects in the corporate world.

ABU DHABI: +971 2 449 6000
ABU DHABI: +971 50 412 3294
DUBAI: +971 4 888 6787
KSA: +966 56 416 0617
EGYPT: +20 127 111 1770

[Click Here To Visit Course](#)



Fundamentals of Chemistry

Target Audience

- ✓ Science and engineering students
- ✓ Laboratory technicians and chemists
- ✓ Professionals needing a chemistry refresher
- ✓ Industry workers handling chemical processes
- ✓ Technical staff in research and development

ABU DHABI: +971 2 449 6000

ABU DHABI: +971 50 412 3294

DUBAI: +971 4 888 6787

KSA: +966 56 416 0617

EGYPT: +20 127 111 1770

[Click Here To Visit Course](#)



Fundamentals of Chemistry

Learning Objectives

- ✓ Understand the basic concepts and principles of chemistry, including atomic structure and chemical bonding.
- ✓ Identify and differentiate between various types of chemical reactions and equations.
- ✓ Comprehend the properties and behavior of gases, liquids, and solids.
- ✓ Analyze the concepts of acids, bases, and pH levels in chemical solutions.
- ✓ Apply knowledge of chemical principles in practical laboratory scenarios and real-world contexts.

ABU DHABI: +971 2 449 6000

ABU DHABI: +971 50 412 3294

DUBAI: +971 4 888 6787

KSA: +966 56 416 0617

EGYPT: +20 127 111 1770

[Click Here To Visit Course](#)



Fundamentals of Chemistry

Course Outline

✓ 01 Day One

Atomic Structure and the Periodic Table

- ✓ Structure of atoms: protons, neutrons, electrons
- ✓ Atomic number, mass number, and isotopes
- ✓ Electron configuration and energy levels
- ✓ Understanding the periodic table layout and trends
- ✓ Elements, compounds, and mixtures
- ✓ Periodic properties: atomic radius, ionization energy, electronegativity
- ✓ Applications of the periodic table in scientific research

ABU DHABI: +971 2 449 6000

ABU DHABI: +971 50 412 3294

DUBAI: +971 4 888 6787

KSA: +966 56 416 0617

EGYPT: +20 127 111 1770

[Click Here To vist Course](#)



Fundamentals of Chemistry

Course Outline

✓ 02 Day Two

Chemical Bonding and Molecular Structure

- ✓ Types of chemical bonds: ionic, covalent, metallic
- ✓ Lewis dot structures and molecular geometry
- ✓ Polar and non-polar molecules
- ✓ Intermolecular forces and their effects on properties
- ✓ Bond energy and chemical stability
- ✓ The octet rule and exceptions
- ✓ Real-world examples of bonding in materials and compounds

ABU DHABI: +971 2 449 6000

ABU DHABI: +971 50 412 3294

DUBAI: +971 4 888 6787

KSA: +966 56 416 0617

EGYPT: +20 127 111 1770

[Click Here To visit Course](#)



Fundamentals of Chemistry

Course Outline

✓ 03 Day Three

Chemical Reactions and Equations

- ✓ Types of chemical reactions: synthesis, decomposition, combustion, displacement
- ✓ Writing and balancing chemical equations
- ✓ Law of conservation of mass
- ✓ Reaction rates and factors affecting them
- ✓ Endothermic and exothermic reactions
- ✓ Catalysts and their role in reactions
- ✓ Examples of chemical reactions in industry and nature

ABU DHABI: +971 2 449 6000
ABU DHABI: +971 50 412 3294
DUBAI: +971 4 888 6787
KSA: +966 56 416 0617
EGYPT: +20 127 111 1770

[Click Here To vist Course](#)



Fundamentals of Chemistry

Course Outline

✓ 04 Day Four

States of Matter and Solutions

- ✓ Properties of solids, liquids, and gases
- ✓ Kinetic molecular theory
- ✓ Phase changes and diagrams
- ✓ Gas laws: Boyle's, Charles', and Ideal Gas Law
- ✓ Solubility and factors affecting it
- ✓ Concentration calculations: molarity and molality
- ✓ Practical applications of solution chemistry

ABU DHABI: +971 2 449 6000

ABU DHABI: +971 50 412 3294

DUBAI: +971 4 888 6787

KSA: +966 56 416 0617

EGYPT: +20 127 111 1770

[Click Here To visit Course](#)



Fundamentals of Chemistry

Course Outline

✓ 05 Day Five

Acids, Bases, and Chemical Safety

- ✓ Properties of acids and bases
- ✓ The pH scale and its significance
- ✓ Neutralization reactions
- ✓ Indicators and titration techniques
- ✓ Common laboratory safety practices
- ✓ Handling and storage of chemicals

ABU DHABI: +971 2 449 6000

ABU DHABI: +971 50 412 3294

DUBAI: +971 4 888 6787

KSA: +966 56 416 0617

EGYPT: +20 127 111 1770

[Click Here To vist Course](#)



Fundamentals of Chemistry

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
Aug. 2, 2027	Aug. 6, 2027	5 days	4250.00 \$	UAE , Dubai
Jan. 4, 2027	Jan. 8, 2027	5 days	4250.00 \$	UAE , Abu Dhabi
March 14, 2027	March 18, 2027	5 days	4250.00 \$	KSA , Riyadh
June 13, 2027	June 17, 2027	5 days	4250.00 \$	Egypt , Cairo

ABU DHABI: +971 2 449 6000
ABU DHABI: +971 50 412 3294
DUBAI: +971 4 888 6787
KSA: +966 56 416 0617
EGYPT: +20 127 111 1770

[Click Here To vist Course](#)

info@boostuae.com info@boostorg.com

Generated by BoostLab •

