

Tárgytematika / Course Description General and Inorganic Chemistry

METB_VKTA033

Tárgyfelelős neve /

Teacher's name: Dr. Giczi Zsolt

Félév / Semester: 2024/25/1

Beszámolási forma /

Assesment: Vizsga

Tárgy heti óraszám /

Teaching hours(week): 0/0/0

Tárgy féléves óraszám /

Teaching hours(sem.): 12/0/0

OKTATÁS CÉLJA / AIM OF THE COURSE

The primary objective is for the student to be able to take the specific skills and accomplishments described below and apply, translate, and extrapolate these thought processes to solving problems throughout life.

TANTÁRGY TARTALMA / DESCRIPTION

1. Week: Introduction to chemistry, solving problems using scientific approach
2. Week: Measurements and calculations: SI units, derived units, scientific notation, uncertainty, reporting measurements, converting one unit to another
3. Week: Matter and energy
4. Week: Elements, atoms, ions, nomenclature of compounds
5. Week: Periodic table
6. Week: Atomic mass, mole, molar mass, percent composition and formulas
7. Week: Chemical equations
8. Week: Reactions
9. Week: Modern atomic theory
10. Week: The atom and electron configuration, oxidation number
11. Week: Chemical bonding, Lewis structures
12. Week: Gases, Gas Laws
13. Week: Solids
14. Week: Liquids and chemistry of water, acid and base

SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESSMENT'S METHOD

The exam is the form of final control for the discipline "General and inorganic chemistry" studying.

Students, who completed all types of activities provided by the syllabus, attended all practical classes.

KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

Required reading

1. General and inorganic chemistry / Levitin Ye.Ya. Vedernikova I.A. – Kharkiv: Publishing House of NUPh: Golden Pages, 2009. – 360 p.
 2. Raymond Chang. Chemistry (6th Edition). – WCB/McGraw-Hill. – 1998. – 995 p.
 3. John McMurry, Robert C. Fay. Chemistry (3rd Edition). – Prentice Hall. – 2001. – 1067 p.
 4. David E. Goldberg. Fundamentals of Chemistry (2nd Edition). – WCB/McGraw-Hill. – 1998. – 561 p.
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AJÁNLOTT IRODALOM / RECOMMENDED MATERIAL

Recommended reading:

1. Rodney J. Sime Physical Chemistry. Methods. Techniques. Experiments. – Saunders College Publishing. – 1990. – 806 p.
2. John McMurry, Robert C. Fay. Chemistry (3rd Edition). – Prentice Hall. – 2001. – 1067 p.
3. David E. Goldberg. Fundamentals of Chemistry (2nd Edition). – WCB/McGraw-Hill. – 1998. – 561 p.
4. Theodore L. Brown, H.Eugene LeMay, Bruce E. Bursten. Chemistry. The Central Science. – Prentice Hall. – 2000. – 1017 p.
5. John Olmsted III, Gregory M. Williams. Chemistry. The Molecular Science. – Mosby. – 1994. – 977 p