UCLouvain

# lchm1322

*2023*

# Exercises in analytical chemistry

| 3.00 credits | 0 h + 66.0 h | Q1 |
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| Teacher(s) | Garcia Yann ; |
| Language : | French |
| Place of the course | Louvain-la-Neuve |
| Prerequisites | It is recommended to have acquired the knowledge and skills developed in the teaching units:<br>LCHM1111 Chimie générale<br>LCHM1211 Chimie générale 2<br>LPHY1101 Physique 1<br>LPHY1102 Physique 2 |
| Main themes | A series of practical exercises on titration methods, gravimetry, potentiometric analysis, chromatographic and spectroscopic techniques are proposed. The student should rely on his Analytical chemistry I course and on the available literature in order to select the most appropriate reactants as well as to define relevant operating modes. |
| Learning outcomes | **At the end of this learning unit, the student is able to :**<br>1 - To favour the understanding of Analytical chemistry I course<br>- To familiarize the student with the theory-experience relationship<br>- To train the student to a professional behaviour in a chemistry laboratory<br>- To give the student an initiative spirit for practical manipulations |
| Evaluation methods | Evaluation :<br>- on the quality of experimental results (/5),<br>- reports given during classes (/5),<br>- laboratory note book maintenance (/5),<br>- tests at the beginning of the labs (/5).<br><br>A global evaluation can be organised on a selected experiment in the lab. |
| Teaching methods | Laboratories |
| Content | Practical exercises on titrimetric methods, gravimetry, potentiometric analysis, chromatographic and spectroscopic techniques.<br>The exercises are presented in a succinct manner, their execution requires from the student the use of the theoretical teaching and the literature at his disposal in order to carry out in a reasoned way the choice of the reagents and to define the operating modes. |
| Inline resources | Moodle and Teams |
| Bibliography | - Fundamentals of Analytical Chemistry, D. A. Skoog, D. M. West, F. J. Holler, S. R. Crouch, 8th ed., Thomson Brooks/Cole, 2004.<br>- Quantitative Chemical Analysis, D. C. Harris, 8th ed., W. H. Freeman & Co., 2011<br>- Méthodes instrumentales d'analyse chimique et applications, G. Burgot, J. -L. Burgot, 2e ed, Lavoisier, 2006.<br>- Exploring Chemical analysis, D. C. Harris, 5th ed., W. H. Freeman & Co., 2012<br>- Fascicule pour les exercices pratiques.<br>- Littérature mise à disposition de l'étudiant. |
| Faculty or entity in charge | CHIM |

## Programmes containing this learning unit (UE)

| Program title | Acronym | Credits | Prerequisite | Learning outcomes |
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| Bachelor in Chemistry | CHIM1BA | 3 | | 🔍 |