



COURSE SYLABUS ANALYTICAL CHEMISTRY

Credits: 02 (Lecture 1,5 – Pracices 0,5 – Self-study 06)

Code: MT01004



Experted Learning Outcomes



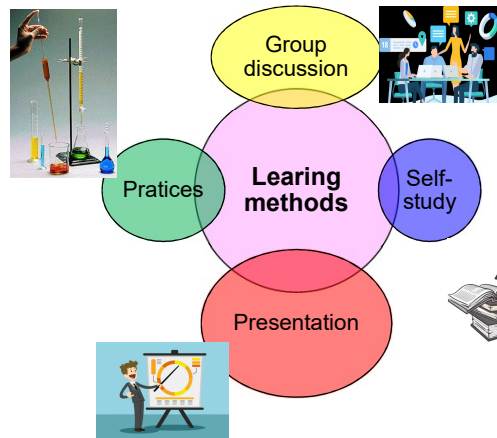
| Indicator | Upon completion of the course, Student able to | Expected learning outcomes of program |
|------------------|---|---|
| Knowledge | | |
| K1 | Summarize certain concepts and principles in analytical chemistry; advantages and disadvantages of volumetric methods; instrumental analysis; concentration; sample analysis; errors and basic equipment. | ELO1: Apply the general knowledge of natural and social sciences and the understanding of contemporary issues to the field of livestock production |
| K2 | Apply volumetric method and instrumental analysis to analyze the presence of specific analytes in the field of livestock production. | ELO1: Apply the general knowledge of natural and social sciences and the understanding of contemporary issues to the field of livestock production |
| K3 | Evaluate the analytical results obtained with current standards in the field of livestock production. | ELO1: Apply the general knowledge of natural and social sciences and the understanding of contemporary issues to the field of livestock production |
| Skills | | |
| K4 | Apply analytical methods adapted to the sample to be analyzed. | ELO 5: Apply effectively creative and critical thinking, and problem-solved skills to scientific research and professional practice |
| K5 | Work in group. | ELO 5: Apply effectively creative and critical thinking, and problem-solved skills to scientific research and professional practice |
| K6 | Calculate results, discuss results and write reports. | ELO 5: Apply effectively creative and critical thinking, and problem-solved skills to scientific research and professional practice |
| Attitude | | |
| K7 | Observe safety rules when practicing. | ELO 12: Comply with state law and specific regulations and professional ethics |

Brief descriptions

Chapter 1: The basic concepts of analytical chemistry
 Chapter 2: Gravimetric method of analysis (lear more)
 Chapter 3: Titrations in analytical chemistry
 Chapter 4: Instrumental analysis
 Three practices:
 Practice 1: Acid-base titration
 Practice 2: Oxidation - reduction titration
 Practice 3: Precipitation titration and complexation titration



"EVERY EXPERIMENT HAS TO REVEAL 'WHY'S IN THE FOOD?', 'WHY'S IN THE WATER?', 'WHY'S IN THE AIR?' SHE IS REALLY 'THE QUEEN' OF ANALYTICAL CHEMISTRY."



Assessment methods

- Grading scale: 10
- Evaluation:
 - Attend class and group discussions: 10 %
 - Pratice assessments: Students reach practice. These are the conditions for the final exam.
 - Midterm test: 30%
 - Final exam: 60%

Student tasks

- Attendance: Students must attend at least 75% of the class and participate in class activities and 100% practical, discussion sessions.
- Preparing for the lecture: Students must read and carefully the lectures; do homework; presentation; groups discussion.
- Midterm test and final test: Students are required to take midterm test and final exam.

Lecturers

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