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; instruemental 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

Assessment methods

1. Grading scale: 10
2. 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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