Course Specifications

Programme(s) on which the course is given: Chemistry
Major or Minor element of programmes: Minor
Department offering the programme: Chemistry
Department offering the course: Chemistry
Prerequisite: CH278
Academic year / Level: Third
Date of specification approval: 2013

A- Basic Information

Title: Practical analytical chemistry (3) Code: CH3711
Credit Hours: 4 h Lecture:0.0
Tutorial: 4 Practicals: 2 Total: 8h

B- Professional Information

1 – Overall Aims of Course

Illustrate how we can determine the percent of metals in ore by dissolving and transfer it to precipitate accompanied by know chemical structure.

2 – Intended Learning Outcomes of Course (ILOs)

a- Knowledge and Understanding:

The graduates should be able after completing the course to understand the basic steps of gravimetry.

b- Intellectual Skills

1- Improve the formation of precipitate a given element in a solution
2- Learn how to reduce coprecipitation, post precipitation and peptization errors
3- Improve the means of separation of precipitate from its mother liquor

c- Professional and Practical Skills

1- Setup of different experiments of gravimetry.
2- Differentiate between drying and ignition methods .

3- Verdict of some laws of chemistry such as Ksp, Debye Huckel equation and chemical factor.

d- General and Transferable Skills

1- Use some tools and apparatus such as gooch and ashless filter paper in filtration

2- Enhance the representation of scientific data

3- Reduce the experimental erro

3- Contents

Topic	No. of hours	Lecture	Tutorial/ Practical
Determination of H_2O in $BaCl_2.n\ H_2O$	8	-	8
Determination of Ba as $BaSO_4$	16	-	16
Determination of Mg as $MgNH_4PO_4.6H_20$	8	-	8
Determination of Ni as the glyoximate complex	16	-	16
Determination of Pb as $PbCrO_4$	8	-	8
Determination of Ca as $CaC_2O_4.H_2O$	8	-	8
Determination of Al as Al_2O_3	16	-	16
Determination of Fe as Fe_2O_3	16	-	16

4– Teaching and Learning Methods

1 practical work

2-disscutions

5- Graduate Assessment Methods

1 written examination to assess the understanding and comprehension

2- practical exam to assess the performance and profisionalism

Assessment Schedule

Assessment 1 short exam (class activities) Week every two weeks

Assessment 2 mid-term (written and practical) Week 8

Assessment 3 final-term (written and practical) Week 13 and 14

Weighting of Assessments

Mid-Term Examination	**20%**
Final-term Examination	**60%**
Semester Work	**20%**
Total	**100%**

6- List of References

a- Essential Books (Text Books)

1- **Vogel**

2- **Alexeyev**

7- Facilities Required for Teaching and Learning

Experimental lab…

Course Coordinator:

Head of Department: Prof. Dr. Adel Nassar

Date: / /