



## Form (A)

## Planning and Quality Assurance Affairs

**Course Specifications** 

## **General Information**

General Chemistry Lab Course name

PHCH1103 Course number

**Faculty** 

**Department** 

College Needs Course type

**Course level** 

0 **Credit hours (theoretical)** 

**Credit hours (practical)** 

**Course Prerequisites** 

## **Course Objectives**

- 1 Knowledge of safety measurements in chemistry lab
- 2 Methods to identify a substance through chemical and physical properties
- 3 Examination of a substance purity
- 4 Preparation of a lab report
- Classical methods in quantitative analysis

#### **Intended Learning Outcomes**

| Knowledge and Understanding | * | Chemical formula and chemical equations                 |  |
|-----------------------------|---|---------------------------------------------------------|--|
|                             | * | Methods for qualitative and quantitative analysis       |  |
| Intellectual Skills         | * | Selection of an appropriate issue for analysis          |  |
| Professional Skills         | * | Laboratory report preparation                           |  |
|                             | * | Safe work in chemistry lab                              |  |
| General Skill               | * | The correct use of laboratory glassware and instruments |  |

#### **Course Contents**

- 1 \_ Introduction of safety work in lab
- 2 Physical properties examination: Boiling point, solubility
- 3 Physical properties examination: density
- 4 Chemical formula determination
- 5 Limiting reactant
- 6 Units of concentration
- 7 Empirical formula of hydrated salt
- 8 Acid base titration
- Redox titration
- 10 Iodometric titration

# **Teaching and Learning Methods**

- 1 Experimental lab manual
- 2 Explanation of the practical part in experiment per each lab
- 3 Questions to be answered by students related to experiments
- 4 Explanation of the background of experiment per lab
- 5 Explanation of lab report preparation

## **Students Assessment**

| Assessment Method                    | <u>TIME</u>       | <u>MARKS</u> |
|--------------------------------------|-------------------|--------------|
| Quiz and lab reports                 | 10minutes per lab | 50           |
| lab attendance                       |                   | 10           |
| Final exam Practical and theoretical | 60minutes         | 40           |

#### **Books and References**

Course note Lab manual

Essential books Chemistry. R. Chang, 9th Edition, 2007, McGraw Hill Higher Education

Recommended books ... Chemistry. Steven S. Zumdahl, 6th edition, 2002, Houghton Mifflin College Div