

**BA118 Chemistry****COURSE INFORMATION**

Prerequisites	Academic Year & Level		Teaching Methods			Credit Hrs.
	Year	Semester	Lecture	Tutorial	Lab.	
None	1	1	2		2	2

**COURSE AIM**

The Science of chemistry is characterized by its close relation with the other branches of sciences and with the technological applications of these sciences which emerge in the mineral oil, medication, chemical textile and other industries. This course includes topics of specialized chemical engineering technology without going through details.

**COURSE WEEKLY CONTENTS**

- States of matter and Gaseous phase
- Properties of Gases.
- Effusion, diffusion, and root mean square velocity of gases.
- Deviation of real gases
- Introduction to periodic table, Electronic configuration and groups of elements
- Properties of elements and periodicity.
- Midterm Exam
- Electrochemical series-polarization-passivity.
- Definition of corrosion of metals & corrosive environments
- Forms of corrosion, uniform, galvanic and D.A.C, Pitting corrosion, S.C.C, erosion corrosion and I.G.C
- Coating protection & inhibitors, cathodic protection
- 12th Assessment
- Properties of liquid fuel and combustion reactions
- Continue, fuel properties and combustion reactions.
- Revision

**STUDENT GRADING & ASSESSMENT**

Weeks	Exams	Assign.	Quizzes	Reports	Present.	Lab.	Total
1 to 7	20 Midterm	←	10	MARKS		→	30
8 to 12	←		20	MARKS		→	20
13 to 15	←		10	MARKS		→	10
16 or 17	40 Final						40
Total	Exams	Assign.	Quizzes	Reports	Present.	Lab.	100

**REFERENCES**

- Textbook: Chemistry, 10th edn., R. Chang, McGraw-Hill, New York, 2010.
- Other: Chemistry, 9th edn., S. S. Zumdahl, S. A. Zumdahl, Brooks Cole, Belmont, 2014.  
 General Chemistry: Principles and Modern Applications, 10th edn., R. H. Petrucci, Pearson Canada Inc., Toronto, Ontario, 2011.