

Liverpool John Moores University

Title: CHEMISTRY 1
Status: Definitive
Code: **3506IFYSP** (107128)
Version Start Date: 01-08-2011

Owning School/Faculty: Liverpool Business School
Teaching School/Faculty: Liverpool Business School

Team	Leader
Elizabeth Thompson	Y

Academic Level: FHEQ3 **Credit Value:** 12.00 **Total Delivered Hours:** 68.00
Total Learning Hours: 120 **Private Study:** 52

Delivery Options

Course typically offered: Runs Twice - S1 & S2

Component	Contact Hours
Lecture	55.000
Practical	11.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Practical Tasks under test conditions	25.0	
Exam	AS2	Module Examination	75.0	2.00

Aims

To provide an introduction to post-High School Chemistry and act as a preparation for Chemistry 2 with a stimulating learning experience in basic theoretical principles and associated laboratory skills.

Learning Outcomes

After completing the module the student should be able to:

- 1 Demonstrate an understanding of the basis of atomic and molecular structure and of chemical bonding.
- 2 Explain the differences in properties between ions and molecules.
- 3 Use the mole concept and balance chemical equations.
- 4 Explain the basic principles of chemical energy.
- 5 Explain the principles of redox reactions.
- 6 Carry out simple laboratory operations of mass and volume measurement, titrations etc with an awareness of the importance of chemical safety.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Practical tasks	6					
EXAM	1	2	3	4	5	

Outline Syllabus

1. *Formulae, equations and moles*
2. *Atomic Structure*
3. *Introduction to redox*
4. *Thermodynamics*
5. *Bonding*
6. *Equilibria*

Learning Activities

Tutor-led theory lessons to small classes, laboratory-based practical tasks and assessments, regular formative assignments, class tests and terminal module examination.

References

Course Material	Book
Author	Chapman, B
Publishing Year	2003
Title	Structures, Bonding and Main Group Chemistry
Subtitle	
Edition	2nd edition
Publisher	Nelson Thornes
ISBN	97807487765590

Course Material	Book
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Author	Chapman, B
Publishing Year	2003
Title	Organic Chemistry, Energetics, Kinetics and Equilibrium
Subtitle	
Edition	2nd edition
Publisher	Nelson Thornes
ISBN	9780748776566

Course Material	Book
Author	Beavon, R and Jarvis, A
Publishing Year	2003
Title	Periodicity, Quantitative Equilibria and Functional Group Chemistry
Subtitle	
Edition	2nd edition
Publisher	Nelson Thornes
ISBN	9780748776573

Course Material	Book
Author	Jarvis, A
Publishing Year	2004
Title	Transitional Metals, Quantitative Kinetic and Applied Organic Chemistry
Subtitle	
Edition	2nd edition
Publisher	Nelson Thornes
ISBN	9780748776580

Notes

This module builds on the experience of Chemistry gained in the students' earlier studies and by reinforcing and extending their knowledge and understanding of the subject and providing them with opportunities to develop their practical skills prepares them for relevant degree courses at university, whether in Science or Chemical Engineering.