## **Liverpool** John Moores University

Title: CHEMISTRY 2 Status: Definitive

Code: **3002BELSC** (101151)

Version Start Date: 01-08-2011

Owning School/Faculty: Arts, Professional and Social Studies

Teaching School/Faculty: Bellerby's College - Brighton

| Team            | Leader |
|-----------------|--------|
| Jarmila Hickman | Υ      |

Academic Credit Total

Level: FHEQ3 Value: 12.00 Delivered 68.00

52

**Hours:** 

Total Private Learning 120 Study:

**Hours:** 

**Delivery Options** 

Course typically offered: Standard Year Long

| Component | Contact Hours |
|-----------|---------------|
| Lecture   | 55.000        |
| Practical | 11.000        |

Grading Basis: 40 %

## **Assessment Details**

| Category | Short<br>Description | Description                           | Weighting (%) | Exam<br>Duration |
|----------|----------------------|---------------------------------------|---------------|------------------|
| Essay    | AS1                  | Practical tasks under test conditions | 25.0          |                  |
| Exam     | AS2                  | Module Examination                    | 75.0          | 2.00             |

#### Aims

To develop the basic principles of Chemistry and to stimulate the students' appreciation of the social, environmental, economic and technological impact of Chemistry on the community.

## **Learning Outcomes**

After completing the module the student should be able to:

- 1 Present chemical data and ideas in a clear form.
- 2 Explain how chemical reactions work and the main factors which effect them.
- 3 Describe important organic molecules.
- 4 Carry out basic techniques in laboratory work in Chemistry with an emphasis on good laboratory practice and safety.
- Relate Chemistry to other areas of study and recognize its importance in everyday life.

# **Learning Outcomes of Assessments**

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

essay 1 4

EXAM 1 2 3 5

## **Outline Syllabus**

- 1. Acid-based equilibria.
- 2. Kinetics.
- 3. Organic Chemistry, including homologous series, Classification of organic reactions, Organic analysis, Synthetic pathways.

## **Learning Activities**

Tutor-led theory lessons to small classes, practical tasks and assessments, regular formative homework 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  |
|-----------------|---|
| 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           | Transition Metals, Quantitative Kinetic and Applied Organic |
|                 | Chemistry   |
| Subtitle        |   |
| Edition         | 2nd Edition   |
| Publisher       | Nelson Thornes  |
| ISBN            | 9780748776580   |

### **Notes**

This module builds further 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.