1. **Title of the module**

CHEM3140 (CH314) - Introduction to Biochemistry and Drug Chemistry

1. **School or partner institution which will be responsible for management of the module**

Physical Sciences

1. **The level of the module (Level 4, Level 5, Level 6 or Level 7)**

Level 4

1. **The number of credits and the ECTS value which the module represents**

15 credits (7.5 ECTS)

1. **Which term(s) the module is to be taught in (or other teaching pattern)**

Spring

1. **Prerequisite and co-requisite modules**

None

1. **The programmes of study to which the module contributes**

BSc/MSci Forensic Science programmes Stage 1

BSc/MSci Forensic Chemistry programmes Stage 1

BSc/MChem Chemistry programmes Stage 1

1. **The intended subject specific learning outcomes.  
   On successfully completing the module students will be able to:**
   1. Demonstrate knowledge and understanding of core and foundation scientific biological and chemical concepts, terminology, theory, units, conventions, and methods in relation to the biochemical sciences.
   2. Demonstrate knowledge and understanding of areas of chemistry including organic functional groups, medicinal chemistry, biochemistry, and applications in drug chemistry.
   3. Demonstrate knowledge and understanding of essential facts, concepts, principles and theories relating to the subject and to apply such knowledge and understanding to the solution of qualitative and quantitative problems.
   4. Recognise and analyse problems and plan strategies for their solution by the evaluation, interpretation and synthesis of scientific information and data.
2. **The intended generic learning outcomes.  
   On successfully completing the module students will be able to:**

Have a knowledge and understanding of:

* 1. Generic skills needed for students to undertake further training of a professional nature.
  2. Problem-solving skills, relating to qualitative and quantitative information, extending to situations where evaluations have to be made on the basis of limited information.
  3. Time-management and organisational skills, as evidenced by the ability to plan and implement efficient and effective modes of working. Self-management and organisational skills with the capacity to support life-long learning.
  4. Study skills needed for continuing professional development and professional employment.

1. **A synopsis of the curriculum**

Chemistry in context

Using an organic chemistry perspective, you will study some fundamental aspects of biochemistry, including protein chemistry, DNA, lipids and carbohydrates.

1. **Reading list (Indicative list, current at time of publication. Reading lists will be published annually)**

Core Text:

* An Introduction to Medicinal Chemistry, Patrick, Graham L, Oxford University Press 5th Edition, 2013 (ISBN 0199697396)

Recommended:

* McMurry/Simanek, Fundamentals of Organic Chemistry. 6th Edition, 2006 (ISBN 0495125903). 5th Edition is also acceptable

Recommended for Biosciences Students:

* Wade, Organic Chemistry, International Edition 4th Edition, 1998 (ISBN 0-13-010339-X)

Recommended for Forensic Science & Chemistry Students:

* Solomons & Fryhle, Organic Chemistry 7th Edition, 1998 (ISBN 0-471-19095-0)

Recommended:

* Bruce Alberts, Essential Cell Biology, 2010

1. **Learning and teaching methods**

Total contact hours: 32

Private study hours: 118

Total study hours: 150

1. **Assessment methods**
   1. Main assessment methods

Assignment 1 (1 hour, 10%)

Assignment 2 (1 hour, 10%)

Assignment 3 (1 hour, 10%)

Workshop (2 hours, 10%)

Exam (2 hours, 60%)

13.2 Reassessment methods

Exam

1. **Map of module learning outcomes (sections 8 & 9) to learning and teaching methods (section12) and methods of assessment (section 13)**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Module learning outcome** | *8.1* | *8.2* | *8.3* | *8.4* | *9.1* | *9.2* | *9.3* | *9.4* |  |  |
| **Learning/ teaching method** |  |  |  |  |  |  |  |  |  |  |
| **Private Study** | x | x | x | x | x | x | x | x |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| **Assessment method** |  |  |  |  |  |  |  |  |  |  |
| *all assignments* | x | x | x | x | x | x | x | x |  |  |
| *workshop* | x | x | x | x | x | x | x | x |  |  |
| *Examination* | x | x | x | x | x | x | x | x |  |  |
|  |  |  |  |  |  |  |  |  |  |  |

1. **Inclusive module design**

The School recognises and has embedded the expectations of current equality legislation, by ensuring that the module is as accessible as possible by design. Additional alternative arrangements for students with Inclusive Learning Plans (ILPs)/declared disabilities will be made on an individual basis, in consultation with the relevant policies and support services.

The inclusive practices in the guidance (see Annex B Appendix A) have been considered in order to support all students in the following areas:

a) Accessible resources and curriculum

b) Learning, teaching and assessment methods

1. **Campus(es) or centre(s) where module will be delivered**

Canterbury

1. **Internationalisation**

The internationalisation focus of this module is achieved by utilising techniques and information beyond the UK theories or skills being tested which are grounded in universal principles with broad international application

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**Revision record – all revisions must be recorded in the grid and full details of the change retained in the appropriate committee records.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date approved | Major/minor revision | Start date of the delivery of revised version | Section revised | Impacts PLOs (Q6&7 cover sheet) |
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Revised FSO Jan 2018