Drug design and synthesis S346

Presentation pattern October to April

Course description

This course presents the strategy underpinning the design and synthesis of pharmaceutical molecules used in the diagnosis and treatment of diseases and illnesses. It focuses on the design of drug molecules with emphasis on the shape and structure of the molecule using molecular modeling software. Enzyme and receptor protein targets are examined together with the mechanisms by which the drugs work. The course explores the array of chemical reactions and strategies for the synthesis of a range of drugs. Case studies including anti-cholesterol and antibiotic drugs illustrate the importance of these strategies in the development of modern medicines.

Person specification

The person specification for this course should be read in conjunction with the generic person specification for an associate lecturer at The Open University.

As well as meeting all the requirements set out in the generic person specification, you should have:

- A relevant degree including significant organic chemistry
- Experience of postgraduate study in organic chemistry
- Demonstrable current knowledge of organic synthesis and protein chemistry
- Evidence of recent undergraduate teaching in chemistry
- Evidence of developing transferable skills within the context of chemistry
- Proven ability to explain difficult concepts in organic chemistry
- Experience of working online which demonstrates your potential to support student learning effectively in an electronic environment.

It would be an advantage to have:

- Relevant postgraduate qualification in organic chemistry
- Experience of teaching adult learners in chemistry
- Experience of providing support for independent distance learners
- Evidence of competence in the use of advanced communication tools such as synchronous conferencing to facilitate student learning.

Additional information

- The course has its own website and an online discussion forum; you are expected to make use of these facilities regularly for maintaining contact with the students and the course team. In particular, you are also expected to deliver online tuition on specific topics at certain points during the year, and using a computer and the internet to mark the assignments. Training will be provided in these areas.

Module related details - a full explanation can be found on the website

Credits awarded to the student for the successful completion of a module:

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<th>Credits</th>
<th>20</th>
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Number of assignments submitted by the student: 4

Method of submission for assignments: 2

Level of ICT requirements: 2

Number of students likely to be in a standard group: 20

Salary band: 1

Estimated number of hours per teaching week: 2.5