1. **Title of the module**

CHEM1134 (Greenwich Code: PHAM1144) Introduction to Laboratory Practice

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

Medway School of Pharmacy.

1. **The level of the module**

Level 3

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 (12 weeks)

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

None

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

Master of Pharmacy (MPharm), BSc(Hons) in Pharmacology and Physiology

1. **The intended subject specific learning outcomes.
On successfully completing the module students will be able to the following:**
2. Have an appreciation of the importance of Health and Safety in the laboratory
3. Demonstrate a range of fundamental laboratory/industry skills with an aptitude to develop others in the future
4. Demonstrate the ability to use scientific method to test an hypothesis or theory
5. Demonstrate the ability to generate, evaluate, interpret and present practical work
6. **The intended generic learning outcomes.
On successfully completing the module students will be able to the following:**
7. An ability to analyse, evaluate and correctly interpret data.
8. An ability to present and communicate data.
9. An ability to obtain and use information from a variety of sources as part of self-directed learning.
10. Time-management and organisational skills within the context of self-directed learning.
11. **A synopsis of the curriculum**
12. Health and safety in the workplace and relevant legislation
13. Basic science skills such as GLP, keeping a laboratory notebook, making and recording measurements, identifying sources of error.
14. SI units, concentration (molarities), serial dilutions.
15. Preparation and use of buffers. Definition of pH and its relevance in biological systems.
16. Use of a range of standard equipment found in the bioscience sector.
17. Generation and presentation of data (tables and graphs), together with writing laboratory reports.
18. **Reading list (Indicative list, current at time of publication. Reading lists will be published annually)**

Rang, Ritter, Flower & Henderson (2015) *Pharmacology*, 8th Edition, Churchill Livingstone

1. **Learning and teaching methods**

The following teaching methods will be utilized. Lectures, laboratory practicals, seminars and private study.

The primary mode of delivery will be 2 hour lectures (1 term). Additionally there will be two 3 hour laboratories and one 3 hour seminar.

*Lectures* serve to deliver the core material directly related to themes shown in the curriculum synopsis and help the students achieve the subject specific learning outcomes.

The *laboratory practicals* serve to reinforce concepts introduced in the lectures and also serve to help the students achieve both the subject specific learning outcomes and the generic learning outcomes.

*Seminars* serve to consolidate the material and help the students achieve the subject specific learning objectives.

*Private study* (revision) is student driven and serves to consolidate understanding and help students achieve both subject selective learning outcomes and generic learning outcomes.

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

This module will be assessed by 50% coursework (lab report, 1000 words) and 50% Observed Structured Practical Examination (OSPE). The OSPE will examine the practical skills of the student in terms of the speed and accuracy in completing timed laboratory asked in the presence of an assessor.

The passmark for this module is 40% (note that the progression mark is 60% in each module to progress onto stage 1 of the MPharm, 50% in each module to progress onto the BSc (Hons in Pharmacology and Physiology).

13.2 Reassessment methods

In accordance with the academic regulations for the MPharm degree programme (2017) and the BSc (Hons) in Pharmacology and Physiology (2017), students will be allowed one further opportunity to resit a failed examination.

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** | **Hours allocated** |  |  |  |  |  |  |  |  |
| **Private Study** | 121 | **X** | **X** | **X** | **X** |  |  |  | **X** |
| **Lectures** | 20 | **X** | **X** | **X** | **X** |  |  |  |  |
| **Laboratory** | 6 | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |
| **Seminar** | 3 | **X** | **X** | **X** | **X** |  |  |  |  |
| **Assessment method** |  |  |  |  |  |  |  |  |  |
| *Laboratory* *Report* |  | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |
| *OSPE* |  | **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**

**Medway**.

1. **Internationalisation**

Staff directly teaching on this module have a significant amount of scientific training from institutions all over the world.

**If the module is part of a programme in a Partner College or Validated Institution, please complete sections 18 and 19. If the module is not part of a programme in a Partner College or Validated Institution these sections can be deleted.**

1. **Partner College/Validated Institution**

N/A

1. **University School responsible for the programme**

Medway School of Pharmacy

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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) |
| 31/10/18 | New module |  |  |  |
|  |  |  |  |  |