1. **Title of the module**

PHAR1049 (Greenwich Code: PHAR1055) Introduction to Pharmacology

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. Understand the difference between receptor occupancy and receptor activation and understand the basic principles of the ‘two-state’ model.
3. Understand the concepts of potency and efficacy.
4. Understand the mechanisms of antagonist actions
5. Understand what is meant by the term ‘drug target’ and how this relates to drug interaction with cell signalling
6. Understand how receptors can mediate cell signalling
7. Understand how drugs alter cell signalling by binding to receptors
8. Have a general understanding of the drug discovery/development pipeline
9. **The intended generic learning outcomes.  
   On successfully completing the module students will be able to the following:**
10. Develop practical laboratory based skills.
11. Develop an ability to analyse, evaluate and correctly interpret data.
12. Develop an ability to present and communicate data.
13. Develop anability to obtain and use information from a variety of sources as part of self-directed learning.
14. Develop time-management and organisational skills within the context of self-directed learning.
15. **A synopsis of the curriculum**

**This module aims to provide an introduction to the scientific discipline of pharmacology, which examines the effects of drugs on living systems. The topics will generally follow in sequential order to build up the students understanding to greater levels of complexity:**

1. Receptor theory
2. Affinity and ligand binding
3. Agonist action, potency and efficacy
4. Antagonism
5. Drug targets
6. Receptor classification
7. Drug action and cell signalling
8. Drug discovery and development
9. **Reading list (Indicative list, current at time of publication. Reading lists will be published annually)**

Rang, Ritter and Henderson (2015) Pharmacology, 8th Edition

070253627

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 10% in-class assessment, 30% coursework and 60% exam.

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

Normally, 1 resit examination in accordance with MPharm academic regulations (2017) and the regulations which pertain to the BSc (Hons) in Pharmacology and Physiology (2017).

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* | *8.5* | *8.6* | *8.7* | *8.8* | *9.1* | *9.2* | *9.3* | *9.4* | *9.5* |
| **Learning/ teaching method** | **Hours allocated** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Private Study** | 121 | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |  |  |  | **X** | **X** |
| **Lectures** | 20 | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |  |  |  |  |  |
| **Laboratory** | 6 | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |  | **X** |
| **Seminar** | 3 | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |  |  |  |  |  |
| **Assessment method** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Formative MCQ Quizzes* |  | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |  |  |  |  |  |
| *In-class assessment*  *(Summative MCQ Quizzes)* |  | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |  |  |  |  |  |
| *Laboratory*  *Report* |  | **X** | **X** | **X** |  |  |  |  |  | **X** | **X** | **X** | **X** | **X** |
| *Written 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**

**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 |  |  |  |
|  |  |  |  |  |