1. **Title of the module**

PHAM1129 - Integrated Therapeutics 3C – Brain, Psychiatry, Eyes

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 4, Level 5, Level 6 or Level 7)**

Level 6

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

40 credits (20 ECTS)

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

Spring

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

Prerequisites:

A successful completion of all the modules at Stage 1 (level 4) and Stage 2 (level 5) of the MPharm programme

Co-requisites:

PHAM1131 Integrated Therapeutics 3A

PHAM1130 Integrated Therapeutics 3B

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

MPharm (Master of Pharmacy)

1. **The intended subject specific learning outcomes.
On successfully completing the module students will be able to:**

Have:

1. A systematic understanding of the pathophysiology of the specific central nervous system diseases and psychiatric conditions
2. A critical understanding of the pharmacological interventions, including a detailed knowledge of mechanism of drug action, for the prevention and treatment of selected conditions
3. An ability to reflect on and discuss key aspects of patient safety including: cautions, contra-indications, adverse drug reactions and drug interactions associated with specific therapies
4. An understanding of the contribution of pharmacy to public health and illness prevention
5. An ability to apply the detailed knowledge and understanding of the physical chemical principles of drug action to the design of active agents using techniques such as Quantitative Structure Activity Relationships (QSAR)
6. An ability to apply the coherent and detailed knowledge of quality assurance of medicinal products from drug development to manufacturing
7. A systematic understanding of regulatory pathways for obtaining marketing authorisation for medicinal products in Great Britain and Europe
8. An ability to demonstrate the understanding and application of key statistical principles and methods, which are relevant to scientific and health related research projects
9. An ability to critically appraise the literature, including: evaluate the range of research designs and methodologies, interpret key findings, identify study limitations and utilise the emerging evidence to guide best practice
10. An understanding of research service evaluation and audit and its application to health services practice
11. An ability to critically evaluate scientific and health related research projects and to reflect on the ethical issues that need to be taken into account when conducting such projects
12. A systematic application of law and ethics including accountability and responsibility in the practice of pharmacy
13. A systematic understanding of the principles of medicines management and the application of these to the care of individual patients (optimising medicines)
14. Demonstrates appropriately undertaken clinical prescription reviews for patients with co-morbidities and make justified decision in relation to the supply, or non-supply, of prescription and non-prescription medicines
15. **The intended generic learning outcomes.
On successfully completing the module students will be able to:**

Have:

1. An ability to communicate information to both specialist and non-specialist audiences; decision making in the absence of complete information
2. An ability to undertake complex pharmaceutical calculations, without a calculator, to ensure patient safety
3. An ability to analyse and critically evaluate published data
4. Time-management and organisational skills within both the context of self-directed learning and class group work
5. **A synopsis of the curriculum**

Neurological Disorders

* Mechanisms of pain perception
* Analgesic drug therapies
* Pathophysiology, treatment and prevention of migraine

Neurodegenerative Disorders

* Pathophysiology and treatment of Alzheimer’s disease and other dementias
* Pathophysiology and treatment of Parkinson’s disease

Psychiatric Conditions

* Presentation, diagnosis and treatment of psychosis and schizophrenia
* Presentation, diagnosis and treatment of bipolar disorder
* Neurological mechanisms reinforcing addiction

Opthalmics

* Pathophysiology and treatment of glaucoma

Research Methods

* Research methodologies
* Critical appraisal
* Statistical methods and data analysis
* Research governance
* Research service evaluation and audit

Drug Discovery

* Sources of drugs and the discovery process
* Quantitative Structural Activity Relationship (QSAR) and molecular modelling
* Lead optimisation
* Prodrugs and isosteres
* Structure Activity Relationships
* Drugs used for the treatment of neurological, neurodegenerative and psychiatric disorders
* Regulatory requirements and pathways
* Drug development process
* Quality assurance and Good Manufacturing Practice (GMP)
* Quality by design

Framework for Practice

* Optimising medicines for patients
* NHS Contract
* Prescribing
* Medicines supply
* Medicines administration
* Development of professional behaviour
* Public health and illness prevention
1. **Reading list (Indicative list, current at time of publication. Reading lists will be published annually)**

The reading list for the module will be updated annually.

The current reading is available to students on the module Moodle page.

1. **Learning and teaching methods**

Total contact hours: 125

Private study hours: 275

Total study hours: 400

1. **Assessment methods**
	1. Main assessment methods
2. Coursework (40% of module mark):
3. MCQ Assessment (50% of Coursework mark)
4. Written Assignment (50 % of Coursework mark)
5. Written Examination, 3 hours (60% of module mark)
6. Professional Competency (Pass/Fail)
	1. Attendance (P/F) \*
	2. Closed Book Assessment *(*MCQ) (P/F) \*\*
	3. Dispensing Assessment *(decision making)* (P/F) #

The pass mark for this module is 50%. Students must pass both the coursework overall and the examination element in order to satisfactorily complete the module.

Students must pass the professional competency assessments in order to satisfactorily complete the module and to progress to the next stage of the MPharm programme:

\* Students who fail to meet the 80% threshold attendance at all scheduled coursework sessions (i.e. workshops, laboratory sessions and seminars) will have their coursework capped to the pass mark. Students who fail to meet the 60% threshold will be deemed not to have met the learning outcomes and will fail the module.

\*\* Requires 70% attainment for a Pass

# Requires 70% attainment and meet any predefined required elements (where a student makes what would, in real world practice, be an unlawful, life-threatening or life-ending decision) for a Pass.

13.2 Reassessment methods

Like for like

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* | *8.9* | *8.10* | *8.11* | *8.12* | *8.13* | *8.14* | *9.1* | *9.2* | *9.3* | *9.4* |
| **Learning/ teaching method** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Private Studies* | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| *Lectures* | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| *Laboratory sessions/ workshops* | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| **Assessment method** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *MCQ Assessment* | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| *Written Assignment* | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| *Dispensing Assessment* | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| *Closed Book Assessment* | x | x | x | x |  |  |  | x | x | x | x | x | x | x |  |  |  |  |
| *Written Examination* | x | x | x | x | x | x | x | x | x | x | x | x | x | x |  |  |  |  |
| *Attendance* | x | x | x | x | x | x | x | x | x | x | 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**

The staff involved in teaching this module have had substantial training abroad and this will further the international nature of the delivery of this module.

One of the goals of the MPharm degree programme is to produce graduates who will eventually become registered pharmacists in the United Kingdom. However, many of our MPharm graduates have become successful pharmacists in the Republic of Ireland, Canada and other nations.

**FACULTIES SUPPORT OFFICE USE ONLY**

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

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| --- | --- | --- | --- | --- |
| 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