



University of the
West of England

MODULE SPECIFICATION

Code: USPJGK-20-3 **Title:** Psychopharmacology **Version:** 4

Level: 3 **UWE credit rating:** 20 **ECTS credit rating:** 10

Module type: Standard

Owning Faculty: Health and Life Sciences **Field:** Psychology

Faculty Committee approval: Quality and Standards Committee **Date:** March 2011

Approved for Delivery by: N/A

Valid from: September 2011 **Discontinued from:**

Pre-requisites:

USPJLD-30-2 Biological Psychology and Individual Differences 2 or USPJLY-20-2 Individual Differences and Biological Psychology or USPJDH-20-2 Aspects of Cognition

Co-requisites:

None

Entry Requirements:

N/A

Excluded Combinations:

None

Learning Outcomes:

The student will be able to:

- demonstrate a current knowledge of neurotransmitter and receptor models of normal human brain function and their relation to models of abnormal brain function and mental disorder;
- gain a critical appreciation of research methods in psychopharmacology;
- accrue an understanding and critical awareness of the role of drugs in the treatment of mental disorders, neurodegenerative disorders and other conditions. Appreciate their strengths and limitations in relation to other (e.g. psychotherapeutic) approaches to treatment;
- critically evaluate psychopharmacological models for the experience of pleasure and drugs of abuse;
- develop a current awareness of sex differences in psychopharmacology;
- demonstrate appropriate knowledge application and reasoning through the preparation of a critical literature review and seminar presentation or research proposal.

Syllabus Outline:

Indicative Syllabus Content:

Lectures/Discussions

- 1) Research Methods in Psychopharmacology: Before and after the randomised, double-blind, placebo-controlled trial, individual experience Vs standardised diagnostic and response assessments, subjective and objective measures, drug trial designs, the placebo response and relevance to psychopharmacology. Psychotherapeutic approaches and their assessment.
- 2) Communication Within the CNS i): Classical neurotransmitters, enzymes, ion channels, second messenger systems, transport carriers, ion regulation and gene regulation. Current models of how drugs modify neurotransmission.
- 3) Communication Within the CNS ii): Receptors: Agonists, antagonists, inverse agonists, partial agonists, receptor superfamilies - positive and negative allosteric interactions, G protein and second messenger systems.

- 4) Neurotransmitters and Factors Affecting Mental and Neurodegenerative Disorders: Genetic vulnerability, environmental influences on the individual and the genome (e.g. viruses, toxins, diseases, excitotoxicity). Life events and stressors, personality, coping and social support.
- 5) Mood Disorders: bipolar disorder, anxiety, depression and insomnia. Clinical features of mood disorder, effects of treatment on mood disorders, including long-term outcomes and the '5 r's' of antidepressant treatment, mood disorders across the lifecycle. Drug treatments and psychotherapeutic approaches to mood disorders.
- 6) Obsessive Compulsive Disorder, Panic disorder, Phobic Disorder and Posttraumatic Stress disorder: Clinical features, biological bases, drug treatments, psychotherapeutic and other treatment approaches.
- 7) Psychotic Illness: Clinical descriptions, biological bases (including neurodevelopmental & neurodegenerative hypotheses for schizophrenia.). Drug, psychotherapeutic and other treatment approaches, antipsychotic agents - conventional, atypical and others.
- 8) Neurodegenerative Disorders - Parkinson's Disease, Stroke, Alzheimer's Disease, (Schizophrenia): clinical features, biological bases including excitotoxicity, treatment approaches.
- 9) Cognitive Enhancers: Monoamines and attention, hyperactivity, impulsivity and inattention, treatment approaches. Psychopharmacology of memory (amnestic, promnestic), current treatments and future prospects.
- 10) Drugs of Reward and Abuse: Biological bases (mesolimbic dopamine pathway and the psychopharmacology of pleasure, drugs of reward and abuse (e.g. alcohol, benzodiazepines & sedatives, cannabinoids, hallucinogens, nicotine, opiates, stimulants).
- 11) Psychopharmacology of Obesity: Neuropsychopharmacology of obesity (e.g. H1 and Leptin), relevance to current drug regimens (e.g. antipsychotics, antidepressants).
- 12) Sex Differences and Psychopharmacology: Hormones and sex differences, hormonal influences on mood and cognitive function, relevance to mood disorders and current treatment practices (e.g. menstrual dysphoria and SSRI's). Psychopharmacology of sexual function - libido & sexual response, implications for current treatment practise (e.g. antidepressants and antipsychotics).

Teaching and Learning Methods:

Lectures, seminars and discussions

Reading Strategy:

All students will be encouraged to make full use of the print and electronic resources available to them through membership of the University. These include a range of electronic journals and a wide variety of resources available through web sites and information gateways. The University Library's web pages provide access to subject relevant resources and services, and to the library catalogue. Many resources can be accessed remotely. Students will be presented with opportunities within the curriculum to develop their information retrieval and evaluation skills in order to identify such resources effectively.

Any **essential reading** will be indicated clearly, along with the method for accessing it, e.g. students may be expected to purchase a set text, be given or sold a print study pack or be referred to texts that are available electronically, etc. This guidance will be available either in the module handbook, via the module information on Blackboard or through any other vehicle deemed appropriate by the module/programme leaders.

If **further reading** is expected, this will be indicated clearly. If specific texts are listed, a clear indication will be given regarding how to access them and, if appropriate, students will be given guidance on how to identify relevant sources for themselves, e.g. through use of bibliographical databases.

Indicative Reading List:

Books: Example selection of relevant texts and journals:

Cooper JR, Bloom FE and Roth RH (2003) *The Biochemical Basis of Neuropharmacology* (8th Edn). New York: Oxford University Press.

Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV). (1994) Washington DC: American Psychiatric Association.

Janicak PG (1999) *Handbook of Psychopharmacology*. Philadelphia: Lippincott, Williams and Wilkins.

Leonard B (2002) *Fundamentals of Psychopharmacology* (2nd Edn). Chichester: John Wiley & Sons.

Nemeroff CB and Schatzberg AF (1999) *Recognition and Treatment of Psychiatric Disorders: A Psychopharmacology Handbook for Primary Care*. Washington DC: American Psychiatric Press inc.

Stahl S (2005) *Essential Psychopharmacology* (3rd Edn). Cambridge: Cambridge University

Press.

Journals: Human Psychopharmacology, Journal of Psychopharmacology, Psychopharmacology

Assessment:

Weighting between components A and B (standard modules only) A: 40% B: 60%

FIRST ATTEMPT

First Assessment Opportunity

Component A (*controlled*)

Description of each element

CW1 Timed Assignment (1hour)

Element Wt (Ratio)

(*within Component*)

1

Component B

Description of each element

CW2 Group Seminar Presentation

CW3 Literature Review (up to 2000 words)

Element Wt (Ratio)

(*within Component*)

2

3

Second Assessment Opportunity (further attendance at taught classes is not required)

Component A (*controlled*)

Description of each element

CW1 Timed Assignment (1 hour)

Element Wt (Ratio)

(*within Component*)

1

Component B

Description of each element

CW2 Literature Review: Review (up to 2000 words)

CW3 Research Proposal: Proposal (up to 2000 words)

Element Wt (Ratio)

(*within Component*)

1

1

SECOND (OR SUBSEQUENT) ATTEMPT Attendance at taught classes is required.

Specification confirmed by **Date**
(Associate Dean/Programme Director)