University of the West of England
BRISTOL

CORPORATE AND ACADEMIC SERVICES

MODULE SPECIFICATION

Part 1: Basic Data						
Module Title	Physiology and Pharmacology for Nursing Practice					
Module Code	UZWSMW-30-1		Level	1	Version	1
Owning Faculty	Health and Life Sciences		Field	Acute and Critical Care Adult Nursing		
Contributes towards	BSc (Hons) Nursing					
UWE Credit Rating	30	ECTS Credit Rating	15	Module Type	Standard	
Pre-requisites	None		Co- requisites	None		
Excluded Combinations	None		Module Entry requirements	None		
Valid From	September 2013		Valid to	September 2019		

CAP Approval Date	9 May 2013

Part 2: Learning and Teaching	
Learning Outcomes	On successful completion of this module students will be able to: • Identify physiological needs and key processes necessary for maintaining homeostasis (Component A and B) • Describe the structure and function of cells, tissues and physiological systems and the complex nature of their interactions (Component A and B) • Demonstrate a knowledge and understanding of the role of genes in health and in the manifestation, modification and prevention of disease relevant to nursing practice (Component A) • Outline the key principles of pharmacology (Component A) • Describe characteristics of major medicines groups and selected 'typical' medicines in terms of the following: mechanism of action, indications for use, contraindications to use, expected therapeutic effects, common or serious side effects (Component A and B) • Discuss the key physiological and pharmacological concepts which aim to promote or restore homeostasis in nursing practice (Component A and B) • Demonstrate an understanding of the physiological basis which underpins nursing practice (Component A and B) • Identify, retrieve, organise and use information related to applied physiology and pharmacology and show understanding of its relevance to nursing practice (Component B)

Syllabus Outline	**Homeostasis and health:** levels of organisation in the human body, cell structure and function, integrated functioning of organ systems, principles of homeostasis, structure and function of skin **Body fluids and transport:** blood and other body fluids, structure and functions of heart and blood vessels, control of blood pressure, hydration, physiology of shock **Feeding and nutrition:** regulation of eating and swallowing, principles of nutrition, physiology of the digestive system, structure and functions of liver **Movement and stability:** control of posture and movement, bones, joints and skeletal muscle physiology **Respiration**: respiratory structures, ventilation, gas exchange, control of breathing **Excretion:** kidney function, control of fluid balance, biological basis of continence **Communication and control:** structure and function of different divisions of the nervous system, structure and functions of the nerve cells, synapses and neurotransmission, roles of hormones, physiology of stress **Pain:** physiology of pain and pain pathways, pain theories, physiological basis of pharmacological therapies and non-pharmacological strategies to manage pain **Growth and development:** cell proliferation**,** life cycle changes, brain development, biology of ageing, reproductive physiology, introduction to genetics **Sleep and rest:** functions and the physiology of sleep, sleep patterns, physiological basis for interventions that promote sleep **Defence mechanisms:** introduction to micro-organisms; introduction to immunology, non-specific immune response, cell-mediated immunity and humoral immunity **Pharmacology:** principles of pharmacodynamics and pharmacokinetics, commonly used medicine groups and their actions, uses, side effects, and nursing implications
Contact Hours	**A total of 72 hours in the form of seminars, lectures and online activities** Students will have an average of five hours per week contact time in the weeks when the module is delivered. The module will be delivered in two periods, one in each semester. This will take the form of lectures and seminars/workshops. The lectures will be delivered by specialist biological sciences lecturers and the field specific seminars will be delivered by a team of specialist biological sciences lecturers and field specific nurse lecturers. The module will also take advantage of virtual learning environments (VLEs) and technology enhanced learning activities including podcasts and various on-line activities.
Teaching and Learning Methods	A variety of approaches will be used which may include: • Lectures • Seminars • Simulation of case scenarios • Lecturer facilitation and support • Workshops • Service user and carer perspectives • Directed and independent learning • Reflective approaches to learning Students are expected to spend 72 hours on scheduled learning and 228 hours on

	independent learning.
Key Information Sets Information	Key Information Sets (KIS) are produced at programme level for all programmes that this module contributes to, which is a requirement set by HESA/HEFCE. KIS are comparable sets of standardised information about undergraduate courses allowing prospective students to compare and contrast between programmes they are interested in applying for.

Key Information Set - Module data

Number of credits for this module 30

Hours to be allocated	Scheduled learning and teaching study hours	Independent study hours	Placement study hours	Allocated Hours
300	72	228	0	300

The table below indicates as a percentage the total assessment of the module which constitutes a -

Written Exam: Unseen multiple choice exam

Coursework: Written assignment

Please note that this is the total of various types of assessment and will not necessarily reflect the component and module weightings in the Assessment section of this module description:

Total assessment of the module:	
Written exam assessment percentage	50%
Coursework assessment percentage	50%
Practical exam assessment percentage	0%
	100%

Reading Strategy	**Core readings** Students will be expected to purchase one or more of the core texts. The module handbook will include which text(s) should be purchased. Copies of core texts will be provided in the library stock. The module handbook will also reflect the range of reading to be carried out. **Further readings** Further reading will be provided as lecture handouts, guided learning activities and as digitised articles where free electronic access is not available. All students are encouraged to read widely using the library catalogue, a variety of bibliographic and full text databases and Internet resources. Many resources can be accessed remotely. Guidance to some key authors and journal titles available through the Library will be given in the module handbook and updated annually. Assignment reference lists are expected to reflect the range of reading carried out. **Access and skills** Formal opportunities for students to develop their library and information skills are provided within the induction period and their Academic Personal Tutor Programme. Additional support is available through the Library Services web pages, including interactive tutorials on finding books and journals, evaluating

	information and referencing. Sign-up workshops are also offered by the Library.
Indicative Reading List	**Indicative Reading List:** Adams, M.P. and Holland, L.N. (2011) *Pharmacology for Nurses: a Pathophysiologic Approach*. London: Pearson. Barber, P., Parkes, J. and Blundell, D. (2012) *Further Essentials of Pharmacology for Nurses* [online]. Maidenhead: Open University Press [Accessed 8 February 2013]. Blows, W. T. (2011) *The Biological Basis of Mental Health Nursing*. 2nd Ed. London: Routledge. Chamley, C. A., Carson, P., Randall, D. and Sandwell, M. (2005) *Developmental anatomy and physiology of children: a practical approach.* Edinburgh: Elsevier Churchill Livingstone. Greenstein, B (2009) *Trounce's Clinical Pharmacology for Nurses*. 18th ed. Edinburgh: Churchill Livingstone Elsevier. Marieb, E.N. and Hoehn, K. (2013) *Human Anatomy and Physiology*. 9th ed. London: Pearson. MacGregor, J (2008) *Introduction to the Anatomy and Physiology of Children: a Guide for Students of Nursing, Child Care and Health* [online]. 2nd ed. London: Routledge. [Accessed 8 February 2013]. Mcfadden, R. (2009) *Introducing Pharmacology for Nursing and Healthcare*. Harlow: Pearson Education. Saladin, K.S. (2010) *Anatomy and Physiology: the Unity of Form and Function.* 5th ed. London: McGraw-Hill Higher Education. Shier, D.; Butler, J. and Lewis, R. (2013) *Hole's Human Anatomy and Physiology*. 13th Edition. New York: McGraw-Hill. Thorp, C. (2008) *Pharmacology for the health care professions* [online]. Chichester: John Wiley & Sons Ltd. [Accessed 8 February 2013]. VanPutte, C. L., Regan, J.L. and Russo, A.F. (2013) *Seeley's essentials of anatomy and physiology* 8th Ed. London: McGraw-Hill. Van De Graaff, K.M., Rhees, W. And Palmer, S.L. (2009) *Schaum's outline of human anatomy and physiology* [online]. 3rd ed. London: McGraw-Hill USA. [Accessed 8 February 2013]. **Journals** Biological Sciences Review British Journal of Nursing Nursing Standard **Database** Anatomy & Physiology Online

Part 3: Assessment	
Assessment Strategy	• Component A (controlled condition) will take the form of a 1.5 hour multiple choice examination. This type of examination will enable assessment across most of the module learning outcomes to ensure students have a broad and detailed understanding of the core concepts in physiology and pharmacology.

	• Component B will be a 2000 word written assignment consisting of four smaller written pieces of 500 words which will be linked but discrete. The written assignment will be designed to assess students' ability to apply their knowledge of physiology and pharmacology in their field of practice. • The opportunities for formative assessment will include on-line multiple choice questions which will provide instant feedback for students. The seminars will provide opportunities for students to apply physiology and pharmacology concepts to case studies from their field of practice. Small group activities and short presentations within seminars will provide opportunities for formative assessment by peers and academic staff.

Identify final assessment component and element	**A**	
% weighting between components A and B (Standard modules only)	**A:** **50%**	**B**: **50%**

First Sit	
Component A (controlled conditions) **Description of each element**	**Element weighting** **(as % of component)**
1. Exam (1.5 hours)	100%
Component B **Description of each element**	**Element weighting** **(as % of component)**
1. Written assignment (2000 words)	100%

Resit (further attendance at taught classes is not required)	
Component A (controlled conditions) **Description of each element**	**Element weighting** **(as % of component)**
1. Exam (1.5 hours)	100%
Component B **Description of each element**	**Element weighting** **(as % of component)**
1. Written assignment (2000 words)	100%

If a student is permitted an **EXCEPTIONAL RETAKE** of the module the assessment will be that indicated by the Module Description at the time that retake commences.