

Liverpool John Moores University

Title: Biosciences in Nursing Practice
Status: Definitive
Code: **4103NRS** (127757)
Version Start Date: 01-08-2021

Owning School/Faculty: Nursing and Allied Health
Teaching School/Faculty: Nursing and Allied Health

Team	Leader
Donal Deehan	Y

Academic Level: FHEQ4
Credit Value: 20
Total Delivered Hours: 42
Total Learning Hours: 200
Private Study: 158

Delivery Options

Course typically offered: Runs Twice - S1 & S2

Component	Contact Hours
Lecture	20
Workshop	20

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	Exam	Exam (2hr) - unseen MCQ and short answer exam, inc anatomy and physiology, pharmacology, medications management and calculations	100	2

Aims

To provide nursing students with an overview of human body systems that inform skills for nursing practice.

To develop an overview of psychosocial concepts in relation to well-being, disease and illness.

Learning Outcomes

After completing the module the student should be able to:

- 1 Understand how homeostasis is maintained in the human body across the lifecycle
- 2 Explore biopsychosocial factors that influence human development, illness, disease and well-being
- 3 Describe the key pathophysiological mechanisms underlying a range of common disorders.
- 4 Identify the pharmacological processes associated with drugs used to treat a range of common disorders

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Short answer questions and MCQ	1	2	3	4
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Outline Syllabus

Basic structure across the lifespan of all major body systems and their functions in maintaining homeostasis: Cardio-vascular, Respiratory, Neurological, Urinary systems, Fluid and Electrolyte Balance, Acute Renal Failure, Digestive System, Endocrine System, Diabetes Mellitus (Type 1 and 2), Reproductive System, Introduction to Blood, Introduction to Skin and Temperature Regulation and Musculoskeletal System

Basic processes underlying the changes in structure and function of the body across the lifecycle: Introduction to common illnesses from childhood to end of end of life. Terms and concepts relating to human structure and function.

Organisation of the Body Basic chemistry - from molecules to cells to homeostasis Inflammation and body defences. Introduction to Pain Biopsychosocial factors influencing development across the lifespan, health and illness: Introduction to common mental health conditions.

Psychological models of behaviour. Developmental psychology, abnormal psychology

Person centred assessments and care plans

History of mental health. Theories of Mental distress; Classification of Mental Disorder; Descriptive Psychopathology Social models of health Developmental Anatomy and Physiology Pre-Natal influences on health Growth, development and ageing Sexual Health

Basic principles of microbiology and infection control Pathophysiological mechanisms underlying a range of common Disorders: Signs and symptoms Investigating and diagnosing illness

Basic principles of pharmacology in relation to the mechanism of action of drugs used to treat a range of common disorders: Concepts and terms in pharmacology and pathophysiology; Causes and effects of illness

Basic Pharmacology and psychopharmacology Introduction to side effects of Medication, polypharmacy, Ilatrogenesis Introduction to substance abuse; Pharmacology of substance abuse and altered consciousness; effects of

psychoactive substances

Clinical skills including: fluid input output, person centred care, NEWS/PEWS, device safety, first aid, BLS (mandatory), medication administration, A-E assessment, medication administration

Bacteriology, virology and parasitology

Biophysics, biochemistry and radiology

Learning Activities

The module is primarily lecture-based but students will also engage in a range of other activities including small group classes, clinical skills sessions, simulated practice sessions, on line learning and presentations. There will also be a number of diagnostic and formative problem solving exercises and quizzes using the VLE

Notes

In addition to the contact hours above there are 158 private study hours.

100 hours are guided, this includes online and assessment preparation. Online hours are e-learning.

60 hours are independent study

Please note that workshop hours account for simulated theoretical learning, in accordance with NMC standard 3.4