

MODULE DESCRIPTOR

Module Title

Applied Paramedic Science

Reference	NU3401	Version	3
Created	September 2024	SCQF Level	SCQF 9
Approved	May 2020	SCQF Points	30
Amended	December 2024	ECTS Points	15

Aims of Module

To enable the student to critically apply their knowledge of the sciences and humanities to meet the physical and emotional needs of people, families and communities in a variety of contexts.

Learning Outcomes for Module

On completion of this module, students are expected to be able to:

- 1 Demonstrate in-depth knowledge and understanding of pathophysiology of long term conditions across the lifespan.
- 2 Critique the physiology processes related to palliation and end of life care.
- 3 Demonstrate in-depth knowledge and understanding of pharmacodynamics and pharmacokinetics applied to those medications utilised by paramedics.
- 4 Critically explore the role of applied technology and behavioural sciences in relation to paramedic practice.
- 5 Interpret tests and investigations related to common, acute and long-term conditions.

Indicative Module Content

Pharmacology, pharmacodynamics and pharmacokinetics; Polypharmacy and drug interactions, sensitivities, and allergies - recognition and reporting; Interpretation of physiological tests and investigations; Behavioural sciences - psychology, sociology, humanities, human factors, challenging behaviours, impaired cognition, team working; Psychopathology - common mental health issues and patterns of distress; Telemedicine; Pathophysiology - biochemistry, microbiology, inflammation, degeneration, infection, neoplasia, shock, trauma; Research and evidence-based practice; Palliation; Death and dying; Five priorities of care; Long term and life limiting conditions. This module aligns with UNSDG goal 3

Module Delivery

Blended learning approach including: lectures, tutorials, online learning, virtual community.

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Indicative Student Workload

Contact Hours

Full Time

60

Part Time

N/A

Non-Contact Hours

240

N/A

Placement/Work-Based Learning Experience [Notional] Hours

N/A

N/A

TOTAL

300

N/A

*Actual Placement hours for professional, statutory or regulatory body***ASSESSMENT PLAN***If a major/minor model is used and box is ticked, % weightings below are indicative only.***Component 1**

Type:

Coursework

Weighting:

100%

Outcomes Assessed:

1, 2, 3, 4, 5

Description:

Written essay

MODULE PERFORMANCE DESCRIPTOR**Explanatory Text**

Seen case based examination.

Module Grade

Minimum Requirements to achieve Module Grade:

A

C1=A

B

C1=B

C

C1=C

D

C1=D

E

C1=E

F

C1=F

NS

Non-submission of work by published deadline or non-attendance for examination

Module Requirements

Prerequisites for Module

None, in addition to SCQF 9 entry requirements or equivalent .

Corequisites for module

None.

Precluded Modules

None.

INDICATIVE BIBLIOGRAPHY

- 1 ATKINSON, S., 2018. *The Edinburgh companion to the critical medical humanities*. Edinburgh: University Press.
- 2 CACABELOS, R., 2019. *Pharmacogenetics*. London: Academic Press, an imprint of Elsevier.
- 3 HEALTH AND CARE PROFESSIONS COUNCIL (HCPC), 2016. *Standards of Conduct, performance and ethics*. London: HCPC.
- 4 HUBERT, R. J., et al. 2018. *Gould's pathophysiology for the health professions*. St. Louis, Missouri: Elsevier.
- 5 McCANCE, K. L., et al. 2015. *Study guide for Pathophysiology, the biologic basis for disease in adults and children*. 7th ed. St. Louis, Missouri: Elsevier.
- 6 MCGAVOCK, H., 2016. *How drugs work: basic pharmacology for healthcare professionals*. 4th ed. London: Taylor Francis Group.
- 7 RANDALL, M and NEIL, K., 2016. *Disease management: a guide to clinical pharmacology*. 3rd ed. London: Pharmacology Press.
- 8 SCOTTISH GENETICS EDUCATION FRAMEWORK (ScotGEN), 2015. *Scottish Genetics Education Framework (ScotGEN)*. Edinburgh: ScotGEN.