

MODULE DESCRIPTOR

Module Title

Human Factors In Healthcare Science

Reference	ASM506	Version	1
Created	May 2021	SCQF Level	SCQF 11
Approved	December 2021	SCQF Points	30
Amended		ECTS Points	15

Aims of Module

To enable the student to develop an advanced understanding of evidence-based tools and techniques to improve the reliability and safety of health care systems and processes. To provide students with the Human Factors/ergonomics knowledge and skills to address performance, safety and wellbeing issues in a clinical laboratory and other clinical environments.

Learning Outcomes for Module

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

- 1 Understand the role and application of Human Factors/ergonomics principles to optimising system performance across the healthcare sciences sector, taking into account workforce capabilities.
- 2 Demonstrate the ability to identify potential and existing high-risk tasks, activities and environments.
- 3 Understand the theoretical and practice bases for healthcare science systems analysis, re-design and/or development.

Indicative Module Content

Introduction to Human Factors/ergonomics in systems design and project management; Introduction of a systems framework (the Systems Engineering Initiative for Patient Safety); System resilience and sustainability; Safety management (including risk assessment); People (teamworking and non-technical skills); Organisations (safety culture); Internal environment (design of human-centred workspaces); External environment (legislation, regulations and policy); Task design (task analysis and performance influencing factors); Tools and technologies (human-centred design and capability-demand theory); Processes and outcomes (including patient safety); The relationship between Human Factors/ergonomics and Quality Improvement.

Module Delivery

This module is delivered with a mix of lectures and tutorials and supplemented by directed reading and seminars. There will be opportunities to link with national health and social care Human Factors/ergonomics education events.

Indicative Student Workload

	Full Time	Part Time
Contact Hours	20	20
Non-Contact Hours	280	280
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	300	300
<i>Actual Placement hours for professional, statutory or regulatory body</i>		

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

Description: A 3000 word report describing a partial analysis of a relevant system using the Systems Engineering Initiative for Patient Safety.

MODULE PERFORMANCE DESCRIPTOR**Explanatory Text**

This module is assessed using the one component detailed in the Assessment Plan. To pass this module, candidates must achieve a Module Grade D or better.

Module Grade	Minimum Requirements to achieve Module Grade:
A	A
B	B
C	C
D	D
E	E
F	F
NS	Non-submission of work by published deadline or non-attendance for examination

Module Requirements

Prerequisites for Module None, in addition to course entry requirements or equivalent.

Corequisites for module None.

Precluded Modules None.

INDICATIVE BIBLIOGRAPHY

- 1 Carayon, P., 2017. *Handbook of human factors and ergonomics in health care and patient safety*. 2nd ed. Boca Raton, FL: CRC Press.
- 2 Norman, D. 2013. *The Design of Everyday Things : Revised and Expanded Edition*. 2nd ed. Basic Books.
- 3 Catchpole, K., Pickup, L., Sujun, M., Vosper, H. *Making Human Factors work in health and social care*. TBC
- 4 Detailed lists are provided by academic staff to reflect the subject matter.