W21C UNIVERSITY OF CALGARY HQCA Health Quality Council of Alberta

Human Factors in Healthcare
Course Program 2020

Calgary February 11, 18, 25   **Edmonton** March 2, 3, 4

Day one

08:30 - 10:00	**Module 1: Introduction to Human Factors in Healthcare**
	1. Define Human Factors and its role in Healthcare as an applied discipline for healthcare improvement
	2. Highlight various Human Factors evaluation methodologies
	3. Identify relevant and reliable sources of information to engage in self-directed learning on the subject of Human Factors in healthcare
10:00 - 12:00	**Module 2: Human Error and Cognitive Biases**
	1. List and describe different types of cognitive errors
	2. Differentiating between the person and system approach to error reduction
	3. Identify various error reduction strategies
	Lunch Break
12:30 - 16:00	**Module 3: Human Factors in the Design and Evaluation of Icons, Labels, and Forms**
	1. Define principles commonly utilized in a Heuristic Evaluation
	2. Evaluate the design of generic labels, forms, and icons in health care documentation applying knowledge of task analysis and heuristic evaluation
	3. Define objective performance metrics to evaluate the effectiveness of labels, forms, and icons
	4. Discuss the potential risks of poorly designed labels, forms, and icons

Day two

08:30 - 12:00	**Module 4: Human Factors in the Design and Evaluation of Digital Interfaces**
	1. Define principles commonly utilized during a Heuristic Evaluation
	2. Develop a Usability Test plan for an assessment of digital interfaces
	3. Define reporting requirements for the evaluation of a digital user interface
	4. Calculate aggregate performance metrics from usability test data
	Lunch Break
12:30 - 16:00	**Module 5: Human Factors in Procurement**
	1. Describe the steps to conduct a Task Analysis for a 'simple' system
	2. Analyze the strengths and limitations of common Human Factors methods for the purposes of procurement activities
	3. Define information requirements [context of use] to be included to set up a usability test
	4. Describe how Human Factors evaluation methodologies can be incorporated into procurement activities

Day three

08:30 - 12:00	**Module 6: Human Factors in Process Evaluation**
	1. List multiple human factors methodologies relevant to planning for the evaluation of a process
	2. Differentiate between design-focused and human-focused solutions to process and implantation problems
	3. Consider the interaction of system elements within a complex environment and the impact those interactions have on process outcomes
	4. Discuss various observational methods and how they can be used to study and optimize processes.
	Lunch Break
12:30 - 16:00	**Module 7: Human Factors in the Design and Evaluation of Environments**
	1. Define the resource requirements for mock-up and post-occupancy evaluations of built environments
	2. Describe how observed behaviours and user feedback can be used for the assessment of built environments
	3. Outline and discuss how to translate evaluation findings into recommendations to improve the effectiveness of built environments