Rationale:

To the user, now more than ever, the interface is the machine. Whether to enable productive and enjoyable access to the riches of the world wide web or to ensure reliable control of safety critical systems, the design of the interface is of utmost importance and should be regarded as a core development activity rather than as a bolt-on task. This module provides a multi-disciplinary overview of the principles and approaches to efficient and effective design of the boundaries where humans and machines meet.

Aims:

- To develop an awareness of various approaches to the design of contemporary user interfaces
- To identify key principles by which effective contemporary user interfaces are designed

Objectives:

- Describe the key principles of user interface design
- Describe a variety of approaches to user interface design
- Be familiar with a variety of methods for evaluating the design of user interfaces
- Apply the knowledge learned in this module to create simple user interfaces

Prior Knowledge Expected:

Candidates are expected to be familiar with the material covered in the Certificate syllabuses and in particular have knowledge of the content of Professional Issues in Information Systems Practice.

Content:

PRINCIPLES OF USER INTERACTION

Knowledge and understanding of concepts such as: cognition, usability, ergonomics and hypertext
CHARACTERISTICS OF GOOD DESIGN

Knowledge and understanding of: characteristics such as: learnability, robustness, flexibility, usability, performance and accessibility

METHODOLOGIES

Knowledge and understanding of: prototyping, ethno-centric approach and participative design

TESTING & EVALUATION

Knowledge and understanding of: the use of focus groups, task-based testing, surveys, interviews, observations and walkthroughs

CONTEMPORARY INTERACTIVE TECHNOLOGIES

Knowledge and understanding of: mobile computing, PDAs, screen readers, voice recognition, touch screens and game peripherals (joysticks, light guns, dance mats etc)

APPLICATION DOMAINS

Awareness of the design characteristics inherent in: e-commerce, edutainment, iTV, entertainment, informational, safety critical systems, games and online communities

USER CENTRED DESIGN

Awareness of concepts such as: target users, user modelling, user scenarios, localisation and globalisation

TECHNOLOGICAL CONSTRAINTS

Awareness of issues such as: screen resolution, design for printing

COMPONENTS OF DESIGN

Understand and apply: metaphors, icons, typography, colour, contrast and juxtaposition, storyboards and mood boards