

BCS Higher Education Qualifications

Diploma in IT

Principles of User Interface Design Syllabus

Version 4.0

December 2016

This is a United Kingdom government regulated qualification which is administered and approved by one or more of the following: Ofqual, Qualification in Wales or SQA.

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1. Change History

Any changes made to the syllabus shall be clearly documented with a change history log. This shall include the latest version number, date of the amendment and the changes made. The purpose is to identify quickly what changes have been made.

Version Number	Date	Changes Made
Version 1.0		Released
Version 2.0	March 2016	Re-formatted with syllabus numbering – no change to content
Version 3.0	March 2016	Reading list revised.
Version 4.0	December 2016	Regulated statement added.

2. 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.

3. 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

4. Objectives

Upon successful completion of this module, candidates will be able to demonstrate their competence in, and their ability to:

- 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

5. Prior Knowledge Expected

Candidates must have achieved the Certificate in IT or have an appropriate exemption to be entered for the Diploma in IT.

Candidates are required to become a member of BCS, The Chartered Institute for IT to sit and be awarded the qualifications. Candidates may apply for a four-year student membership that will support them throughout their studies.

6. Format and Duration of the Examination

The examination is a two-hour closed book examination (no materials can be taken into the examination room) based on the syllabus in this document.

Examinations are held once a year and are undertaken in normal examination conditions with one or more duly appointed invigilators.

The pass mark is 40%.

7. Syllabus Detail

Category	Ref	Content
1 CHARACTERISTICS OF GOOD DESIGN	1.1	Knowledge and understanding of: characteristics such as: learnability, robustness, flexibility, usability, performance and accessibility
2 METHODOLOGIES	2.1	Knowledge and understanding of: prototyping, ethno-centric approach and participative design
3 TESTING & EVALUATION	3.1	Knowledge and understanding of: the use of focus groups, task-based testing, surveys, interviews, observations and walkthroughs
4 CONTEMPORARY INTERACTIVE TECHNOLOGIES	4.1	Knowledge and understanding of: mobile computing, PDAs, screen readers, voice recognition, touch screens and game peripherals (joysticks, light guns, dance mats etc.)
5 APPLICATION DOMAINS	5.1	Awareness of the design characteristics inherent in: e-commerce, edutainment, it, entertainment, informational, safety critical systems, games and online communities
6 USER CENTRED DESIGN	6.1	Awareness of concepts such as: target users, user modelling, user scenarios, localisation and globalisation
7 TECHNOLOGICAL CONSTRAINTS	7.1	Awareness of issues such as: screen resolution, design for printing
8 COMPONENTS OF DESIGN	8.1	Understand and apply: metaphors, icons, typography, colour, contrast and juxtaposition, storyboards and mood boards

8. Recommended Reading List

Module Name	ISBN 10	ISBN 13
Primary Texts		
<ul style="list-style-type: none">David Benyon, Designing Interactive Systems: A comprehensive guide to HCI, UX and interaction design, Pearson, 2013	1447920112	9781447920113
Other Texts		
<ul style="list-style-type: none">F.E. Ritter, G.D. Baxter, and E.F. Churchill Foundations for Designing User-Centred Systems: What System Designers need to know about People, Springer, 2014	144715133X	978-1447151333
<ul style="list-style-type: none">M.B. Rosson and J Carroll, Usability Engineering: Scenario-Based Development of Human-Computer Interaction, Morgan Kaufmann, 2002	1558607129	978-1558607125
<ul style="list-style-type: none">J. Sauro and J.R. Lewis, Quantifying the User Experience; Practical Statistics for User Research, Morgan Kaufman 2012		978-0123849687
Other Reading		
<ul style="list-style-type: none">Interaction Design Foundation https://www.interaction-design.org/literature Accessed 1 April 2016		
<ul style="list-style-type: none">Nielsen Norman Group https://www.nngroup.com/articles/ Accessed 1 April 2016		
<ul style="list-style-type: none">BCS Interaction Specialist Group http://www.bcs.org/category/14296 Accessed 1 April 2016		
<ul style="list-style-type: none">ACM SIGCHI (Special Interest Group on Computer-Human Interaction) http://www.sigchi.org/ Accessed 1 April 2016		

9. Contact Points

Email:

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Lines are open Monday to Friday, 08.15 a.m. to 5.45 p.m. UK time.

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