

# **BCS Higher Education Qualifications**

## **Level 6 Realising The User Interface 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	March 2014	Released
Version 2.0	March 2016	Re-formatted with syllabus numbering – no change to content
Version 3.0	April 2016	Reading list updated
Version 4.0	Dec 2016	Regulation statement added.

## 2. Rationale

This module is a progression route from the Diploma Module Principles of User Interface Design. There is a need for professionals who not only understand the requirements of effective user interface design, but are also able to produce such interfaces. Expanding and developing the material introduced earlier, this module focuses on the selection, use and evaluation of the methods and techniques necessary to design, build and test interfaces in a wide range of contemporary situations from mobile computing and web-browsing to safety critical and other interaction-intensive digital systems. The syllabus considers both the visual and the technical aspects of user interface design.

## 3. Aims

- To provide in-depth understanding of the methods and techniques that can be utilized in the design, implementation and testing of user interfaces
- To develop critical capabilities that enable evaluation and selection of appropriate methods and techniques for interface design
- To engender practical abilities in visual and technical aspects of the design process

## 4. Objectives

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

- Be able to evaluate and select, based on critical analysis, appropriate approaches to interface design in a variety of scenarios
- Demonstrate a responsiveness to the visual and technical requirements of an interface design in the context of its use and setting
- Be able to identify, articulate and apply the legal and ethical constraints appropriate to a number of culture-, application- and platform-dependent settings
- Be able to communicate design decisions in a visual manner
- Know how to design, build and test a user interface appropriate hosting and server strategies for Web sites in various application areas

## 5. Prior Knowledge Expected

The learner must have achieved the Diploma in IT or have an appropriate exemption to be entered for the Professional Graduate 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 three-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

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Note: the focus of this paper is on the production of solutions to design issues from contemporary application domains including (but not limited to) current and emerging technologies, home entertainment, games, education and other global phenomena and events.

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Category	Ref	Content
1 USER CENTRED DESIGN	1.1	Understand and apply user centred design including concepts such as: target users, user modelling, user scenarios, localisation & globalisation, user help and support
2 DESIGN TECHNIQUES	2.1	Select and apply a design methodology appropriate to a specific user interface design task
	2.2	Understand, select and use design techniques such as: storyboards, mood boards, site mapping, information architecture
3 CHARACTERISTICS OF GOOD DESIGN	3.1	Develop schemes of user interaction influenced by characteristics of good design, such as: learnability, robustness, flexibility, usability, performance, accessibility, adaptability, customisation
4 TESTING & EVALUATION		Devise hybrid strategies of testing and evaluation of user interaction with specific focus on:
	4.1	<ul style="list-style-type: none"><li>Approaches to test strategy, test design, and formation of testing criteria</li></ul>
	4.2	<ul style="list-style-type: none"><li>Techniques such as focus groups, task-based testing, surveys, interviews, observations and walkthroughs</li></ul>
5 SOCIAL, ETHICAL AND LEGAL ISSUES		Understand and apply:
	5.1	<ul style="list-style-type: none"><li>Social and ethical impact of technologies for controlling web access.</li></ul>
	5.2	<ul style="list-style-type: none"><li>Social and commercial consequences of media convergence.</li></ul>
	5.3	<ul style="list-style-type: none"><li>Social and economic effects of e-commerce.</li></ul>
	5.4	<ul style="list-style-type: none"><li>Ethical and economic implications of accessibility policies and legislation.</li></ul>
	5.5	<ul style="list-style-type: none"><li>Disability Discrimination Act 1995 (DDA) and the related Special Educational Needs and Disability Act 2001 (SENDA)</li></ul>
5.6	<ul style="list-style-type: none"><li>Web Accessibility Initiative (WAI) from the World Wide Web Consortium (W3C)</li></ul>	
6 CONTEMPORARY INTERACTIVE TECHNOLOGIES	6.1	Design effective interaction for technologies such as: Mobile computing, PDAs, screen readers, voice recognition, touch screens, game peripherals (joysticks, light guns, dance mats etc.) and emergent technologies
7 APPLICATION DOMAINS	7.1	Design effective interaction for application domains such as: e-commerce, edutainment, iTV, entertainment, informational, safety critical systems, games, online communities
8 DESIGN FOR WEB		Design effective interaction for the web considering: <ul style="list-style-type: none"><li>Technologies such as: style sheets, CSS, HTML forms</li><li>Issues such as: web standards, web accessibility, separation of content and presentation, Web 2.0, social web</li></ul>

## 8. Recommended Reading List

Module Name	ISBN 10	ISBN 13
<b>Primary Texts</b>		
<ul style="list-style-type: none"><li>D Benyon, Designing Interactive Systems: A Comprehensive Guide to HCI and Interaction Design, Addison Wesley (3rd Ed) 2013</li></ul>	1447920112	978-1447920113
<b>Other Texts</b>		
<ul style="list-style-type: none"><li>H Sharp, Y Rogers and J Preece, Interaction Design: Beyond Human- Computer Interaction, John Wiley (4<sup>th</sup> Ed) 2015</li></ul>	1119020751	978-1119020752
<ul style="list-style-type: none"><li>G Colborne, Simple and Usable Web, Mobile, and Interaction Design, New Riders 2010</li></ul>	0321703545	978-0321703545
<ul style="list-style-type: none"><li>B Shneiderman, C Plaisant, M Cohen, and S Jacobs, Designing the User Interface: Strategies for Effective Human-Computer Interaction, Pearson View (5th Ed) 2013 International Edition</li></ul>	1292023902	978-1292023908
<b>Other Reading</b>		
Interaction Design Foundation. 2016. Interaction Design Foundation. [ONLINE] Available at: <a href="https://www.interaction-design.org">https://www.interaction-design.org</a> . [Accessed 09 April 2016].		
Nielsen Norman Group: UX Training, Consulting, & Research. 2016. Nielsen Norman Group: UX Training, Consulting, & Research. [ONLINE] Available at: <a href="https://www.nngroup.com">https://www.nngroup.com</a> . [Accessed 09 April 2016].		
AskTog. 2016. AskTog Home Page. [ONLINE] Available at: <a href="http://www.asktog.com">http://www.asktog.com</a> . [Accessed 09 April 2016].		
Web Accessibility Initiative (WAI). 2016. Web Accessibility Initiative (WAI) - home page. [ONLINE] Available at: <a href="http://www.w3.org/WAI/">http://www.w3.org/WAI/</a> . [Accessed 09 April 2016].		
British Interaction Specialist Group (2016). [ONLINE] Available at: <a href="http://www.bcs.org/category/14296">http://www.bcs.org/category/14296</a> . [Accessed 09 April 2016]		

Usability.gov. 2016. Home | Usability.gov. [ONLINE] Available at: <http://www.usability.gov>. [Accessed 09 April 2016].

## 9. Contact Points

### Email:

Customer Service team via [www.bcs.org/contact](http://www.bcs.org/contact)

### Phone:

UK: 01793 417424 or 0845 300 4417 (lo-call rate)

Overseas: +44 (0)1793 417424

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

### Website:

[www.bcs.org/heq](http://www.bcs.org/heq)

### Post:

BCS, The Chartered Institute for IT  
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Swindon SN2 1FA, United Kingdom