

BCS FOUNDATION CERTIFICATE USER EXPERIENCE

SYLLABUS

bcsc

The
Chartered
Institute
for IT

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Introduction

Do you often wonder how something could work better? Do you have a passion for helping others?

UX designers combine their passion for solving problems with helping people. A good UX designer will have the ability to empathise with their users. They will design solutions based on the users' goals, needs and daily tasks.

UX designers champion the needs of every user by making their systems accessible for all. The needs of their intended users will be at the core of every design solution – from conception to completion.

Qualification Suitability and Overview

There are no mandatory requirements for candidates to be able to undertake this certificate qualification, although candidates will need a good standard of written English and Maths. Centres must ensure that learners have the potential and opportunity to gain the qualification successfully.

This qualification is suitable for candidates who are looking to progress their career within UX. It can be taken as a standalone qualification, or in combination with other units and modules as part of a wider programme, such as an Apprenticeship.

This is an occupationally focused qualification which will:

- test a learner's ability to recall and apply knowledge in a range of scenarios.
- demonstrate a practical understanding of key concepts across the topic areas.
- enable a learner to progress in their career.

Candidates can study for this certificate by attending a training course provided by a BCS accredited Training Provider or through self-study.

Total Qualification Time

18 hours

Examples of independent learning include reading of articles or books, watching videos, attendance of other types of training or work shadowing.

Trainer Criteria

It is recommended that to effectively deliver this certification, trainers should possess:

- 30 days training experience or have a Train the Trainer qualification.
- A minimum of 3 years practical experience in the fields of Usability and User Experience.
- The BCS Foundation Certificate in User Experience.
- In-depth knowledge of User Experience and ISO9421-210.

SFIA Levels

This award provides candidates with the level of knowledge highlighted within the table, enabling candidates to develop the skills to operate successfully at the levels of responsibility indicated.

| Level | Levels of Knowledge | Levels of Skill and Responsibility (SFIA) |
|-------|---------------------|---|
| K7 | | Set strategy, inspire and mobilise |
| K6 | Evaluate | Initiate and influence |
| K5 | Synthesise | Ensure and advise |
| K4 | Analyse | Enable |
| K3 | Apply | Apply |
| K2 | Understand | Assist |
| K1 | Remember | Follow |

SFIA Plus

This syllabus has been linked to the SFIA knowledge skills and behaviours required at Level 2 for an individual working in UX.

KSB 2 – Teamwork

Working collaboratively with others to achieve a common goal.

KSC 90 – Systems Ergonomics and Iterative Design

Familiar with iterative methods and techniques to allocate and optimise the division of functions between the human, machine and organisational elements of IT systems and the functions themselves in terms of ergonomic impact. Systematic and iterative design of the physical and cognitive interfaces to create an effective user experience in a software system, product or service with attention paid to variety of locations and access devices employed by users.

KSD 39 – Experimental Work

Aware of techniques for the systematic design, running, analysis and reporting of results of experiments to discover a new understanding of

some aspect of IT.

KSC 89 – Accessibility

Aware of methods and techniques that ensure that users with physical impairments or learning disorders are not disadvantaged by the system.

KSC 36 – Test Management Techniques

Principles, methods, techniques and tools for the effective management of the testing process and the execution of tests throughout the lifecycle of development or integration projects.

KSD 04 – Information Elicitation Techniques

Aware of the selection and application of information elicitation methods, tools and techniques that are appropriate to the information required and the sources available.

UNAN 302 – User objectives

Describes users' goals and tasks and the environment within which the system, product or service will be used.

UNAN 303 – Documentation

Creates and describes personas to represent key user segments. Documents work using the required standards, methods and tools.

URCH 306 – Organisational capabilities

Utilises a range of user research techniques, both qualitative and quantitative, to set up and conduct research and experiments using methods such as: eye-tracking, card sorting, survey design, participatory design sessions, focus groups, unmoderated sessions, remote sessions, lab-based user testing and A/B testing.

URCH 308 – User-centred design

Conducts user journey mapping exercises and use them as a tool to support user-centred design decision making.

DESN – Systems Design

Designing systems to meet specified requirements and agreed systems architectures.

USEV – User Experience Evaluation

Validating systems, products or services against user experience goals, metrics and targets.

KSB 04 – Information Acquisition

Identifying gaps in the available information required to understand a problem or situation and devising a means of resolving them.

KSC 07 – Graphical User Interface (GUI)

Graphical human/computer interfaces that facilitate effective communication between human operator and computer.

Further detail around the SFIA Levels can be found at www.bcs.org/levels.

Learning Outcomes

Upon completion of this module, candidates will be able to demonstrate:

- An understanding of the importance of users' needs, goals and tasks.
- An understanding of empirical measurements of user behaviour.
- An understanding of validated learning through prototyping and iterative design.

Syllabus

1. Guiding Principles (5%, K2)

Candidates will be able to:

1.1 Articulate the importance of taking the users' perspective.

Indicative content

- a. Design refers to the entire process of understanding users' needs, ideating solutions to their needs and specifying the function and form of these solutions.
- b. The problems of self-oriented and unintended design.
- c. Accessibility – the users may not have the same physical and cognitive abilities of the designer.

Guidance

Candidates should be able to explain the importance of taking the user's experience into account. The design is based upon an explicit understanding of users, tasks and environments. Understand how the designer may have a more sophisticated understanding of the software/product than the users. Understand how soft skills and personability are important in research and user focused roles.

1.2 Paraphrase the key principles of user centred design.

Indicative content

- a. Summarise the basic principles of Agile and Lean UX.
- b. The design is based upon an explicit understanding of users, tasks and environments.
- c. Users are involved throughout design and development.
- d. The design is driven and refined by user-centred evaluation.
- e. The process is iterative.
- f. The design addresses the whole user experience.
- g. The design team includes multidisciplinary skills and perspectives.

Guidance

Candidates should be able to understand how UX fits in with Agile. Where would this UX activity fit in with the Agile process? Understand and appreciate the key principles of user centred design, for example from ISO9241-210.

1.3 Understand that users will have different perspectives of systems.

Indicative content

- a. Accessibility – users with disabilities may have needs that other users may not have.
- b. Consider how and why different users will use the product/system.

Guidance

Candidates should be able to demonstrate an understanding that users will have different perspectives of systems. Understand the importance of empathising with users' needs.

1.4 Recall the difference between usability and user experience.

Indicative content

- a. User experience includes not only usability but the users' emotional response to a product. Consider their momentary, anticipatory, episodic, and cumulative experience with the product.
- b. Usability is part of the users' experience and can be measured objectively.

Guidance

Candidates should be able to reecall ISO9241 as an important standard in the field of usability. What is the difference between usability and user experience?

1.5 Summarise the benefits of accessibility.

Indicative content

- a. Considering issues around accessibility will result in a more useable and robust product.
- b. Users with disabilities may have goals that other users may not have – it is therefore essential to include and consider their needs from the beginning of the design process before the project is too far along.
- c. Users with disabilities may be using the product in a different environment from other users. These users need to be included from the beginning so that the design of the solution can take their needs and environment into account.
- d. It is much easier to consider the needs of users with disabilities from the beginning, as adding their requirements later in the design process can become very expensive.
- e. Careful consideration of the needs of users with disabilities adds extra rigour and clarity to the design process which in turn creates a product that is better for every user.

Guidance

Candidates should be able to explain the benefits of accessible design.

2. User Research (10%, K3)

Candidates will be able to:

2.1 Choose the appropriate research method to understand the context of use.

Indicative content

- a. Subjective or opinion-based research, listening to users' opinions.
- b. Empirical, behaviour-based research, based on studying evidence, is a more reliable basis for design.
- c. Contextual inquiry and how to do this using field visits.

Guidance

Candidates are expected to be able to demonstrate that the most powerful data for design comes from field visits where researchers observe the way users achieve their goals in their own environment.

2.2 State the key principles of contextual inquiry.

Indicative content

- a. Contextual inquiry involves studying a few individuals in depth by carrying out field visits to achieve a deep understanding of their activities and goals, the way they interact with technology and with other people and the difficulties they encounter.
- b. The researcher collects data about activities, tools, pain points and workarounds. This information is recorded as a large set of discrete factual observations.
- c. These are then interpreted with the user to generate understanding and analysed with the design team using affinity diagramming to identify common issues and ideas about problem areas.
- d. The information can be presented in an empathy map to help the team develop an understanding of the users.

Guidance

Candidates should be able to describe contextual inquiry as an empirical method that gives insight into people's goals and environment by studying a limited number of individuals in depth during site visits. Studying a few individuals in this way allows a clearer focus on the needs that people have in common, and also the ways in which needs differ between different groups.

2.3 Demonstrate the difference between opinion-based and behaviour-based research methods.

Indicative content

- a. Subjective, opinion-based research such as surveys/questionnaires, focus groups and interviews.
- b. Behaviour-based research such as contextual inquiry.

Guidance

Candidates should be able to discuss the strengths and weaknesses of opinion-based methods, like surveys and focus groups, and behaviour-based methods, like contextual inquiry.

2.4 State the components of the context of use.

Indicative content

- a. Be aware of the many different components of the context of use from: the users, goals and tasks, resources, and the technical, physical, social, cultural and organisational environments in which a product is used (ISO 9241-11, 2018).
- b. PACT (people, activities, contexts, technologies).

Guidance

Candidates should be able to identify how the product is used and recall the components of context of use. What does PACT stand for?

2.5 Identify the potential users of the system.

Indicative content

- a. Consider these three components of the context of use: tasks, resources and environment when identifying people to study.

Guidance

Candidates should be able to identify which individual people to study. Where and how? What makes some people more suitable objects of study than others? Why is it crucial to get as good a match as possible?

2.6 Understand the importance of gaining informed consent from the users.

Indicative content

- a. Tell the participants what we are going to do.
- b. Explain what we want them to do.
- c. Explain the purpose of the research activity.
- d. Explain how the research findings will be used, for example, whether it will be shared, with whom, why and how long it will be kept for.

Guidance

Candidates should be able to understand the importance of ensuring that you obtain the informed consent from users. Why is it important that users have an accurate understanding of what the user research entails?

2.7 Plan site visits to end users to understand the context of use.

Indicative content

- a. Agree a focus for the research.
- b. Visit users in their environment.
- c. Record observations, make recordings and take photographs.
- d. Interpret findings with the user.
- e. Analyse the data using affinity diagramming.
- f. Create descriptions of the context of use.

Guidance

Candidates should be able to articulate the steps in a suitable user research technique, such as a site visit.

2.8 Recognise good and poor questions to ask in user interviews.

Indicative content

- a. Avoid leading questions, that orientate the interviewee towards a particular answer, such as 'Do you think ...?'; 'Don't you sometimes ...?'; 'Would you say that ...?' or 'Isn't it annoying that ...?'
- b. Gather objective facts about goals, tasks, activities, tools, interactions, pain points and workarounds by asking recall questions.
- c. Useful taxonomy of interview question types: Questions that gather context and collect details, questions that probe what's left unsaid, questions that create contrasts so as to uncover framework and mental modes e.g. such as those by Steve Portigal (2013).

Guidance

Candidates should be able to discuss the importance of seeking empathy with users, developing a deep and detailed understanding of people's lived experience, in so far as it relates to the project in hand. They should also understand that skilful interviewing will help to maximise the accuracy and completeness of what the interviewee tells us.

2.9 Discuss the kinds of data that should be collected during a site visit to users.

Indicative content

- a. Record observations, make recordings and take photographs.
- b. What do the users do? How do they communicate? Which are the tasks that are most important in achieving their goals?
- c. Record everything about the physical and social environment that will help to give your colleagues the full picture.
- d. Who does the user need to communicate with to carry out their tasks? What communications systems (high or low tech) do they interact with? Where does communication seem to break down?
- e. What physical objects play a part in the user's activities?
- f. What can you say about the users that will be useful for design, or that will help you later to find other people with similar attributes? What are their motivations? What experience and skills do they have?

Guidance

Candidates should be able to discuss the kinds of data that should be collected during a site visit and report on appropriate data collection methods, such as AEIOU (activities, environments, interactions, objects and users) and Empathy Map.

2.10 Interpret the data from a site visit in ways that can be used to develop a shared knowledge of the context of use.

Indicative content

- a. Observe then clarify why the user acts as they do.
- b. Clarification of anything that might possibly be open to alternative interpretations, even if we think we understand it.

Guidance

Observation does not always equal understanding. Why is clarification important?

2.11 List discount usability research techniques that can be used to understand the context of use, such as diary studies.

Indicative content

- a. Discount usability research techniques take fewer resources than contextual inquiry.
- b. Pop up interviews such as at a company canteen or public space are useful when you need quick information regarding users' goals and tasks.
- c. Diary studies can be used to discover how often a task or issue occurs, how long it takes to deal with it, how it is dealt with and what problems occur in the process.

Guidance

Candidates should be able to list some discount usability techniques such as diary studies, pop up interviews.

2.12 Recognise that requirements gathering and conceptual design should be truly accessible.

Indicative content

- a. The benefits of accessibility.
- b. The importance of considering accessibility from the start of the conceptual design and why it should be considered throughout the entire design process.

Guidance

What is accessibility and why does it benefit the system or product overall?

3. Documenting User Research Findings (15%, K3)

Candidates will be able to:

3.1 Illustrate the specific users of the system.

Indicative content

- a. Demographics such as such as age, gender or education.
- b. Psychological and social characteristics such as cognitive abilities, cultural aspects.
- c. Background, language, literacy, knowledge and skills, motivation and attitude.
- d. Physical and sensory characteristics such as body dimensions, handedness, visual and auditory abilities.

Guidance

Who are the significant distinctly different user groups? The ISO/IEC 25063:2014 standard provides a useful checklist of all the things that might be covered by the context-of-use description.

3.2 Write descriptions of users that can be used for design.

Indicative content

- a. Personas and user groups.
- b. Person description.
- c. Primary personas and negative personas.
- d. Empathy maps.

Guidance

Candidates should be able to articulate how personas and empathy maps can be used for design.

3.3 Explain the rationale for focussing on user needs.

Indicative content

- a. Goals and responsibilities of the user groups and the organisation.
- b. Constraints of each user group that will affect how they use the product/system.

Guidance

Candidates should be able to explain that including too many choices in a user interface increases the cognitive load on users. Understand Hick's Law and how it relates to the number of choices in a user interface.

3.4 Interpret key user needs.

Indicative content

- a. Identify key user needs.

Guidance

Candidates should be able to understand how to identify users' key tasks and illustrate how they relate to user stories in a methodology like SCRUM. Identify which user needs are most important.

3.5 State the elements of a user story.

Indicative content

- a. User–task–goal format:
- As a [user role]
 - I need/want to [do this task]
 - So that [I can achieve this goal]

Guidance

Candidates should be able to outline how the user story reflects real tasks that the user needs to do. What is the user's goal?

4. Measuring Usability (5%, K3)

Candidates will be able to:

4.1 Define usability.

Indicative content

- a. The extent to which a system, product or service can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use (ISO 9241-11, 2018).
- b. Poor design and poor usability effects the users' trust in and the credibility of the company.

Guidance

Candidates should be able to define usability according to ISO 9241-11, 2018. What are the variables UX teams try to optimise? What are XLAs (Experience Level Agreements) and how do they benefit the user? XLAs support the user to achieve what they want.

4.2 Illustrate how the definition of usability can be used to construct measures of usability.

Indicative content

- a. Define the context of use.
- b. Create an evaluation environment that mirrors the context of use.
- c. Define acceptable levels of accuracy, completeness, efficiency and satisfaction.
- d. Have users attempt to carry out tasks to achieve their goals in that environment, using the designs created.
- e. Assess whether the target levels were achieved.

Guidance

Candidates should be able to articulate how the ISO 9241-11 definitions give much-needed clarity on how to evaluate and design for usability.

4.3 Demonstrate how to choose between good and poor design ideas by using behavioural data.

Indicative content

- a. Choosing metrics to understand whether the design is useable.
- b. Prototyping and measuring how well the user can carry out tasks.

Guidance

How can the designer measure how well the user can carry out their tasks? How can they understand whether the design is useable for the intended users?

4.4 Illustrate the role design experiments play in validated learning.

Indicative content

- a. Validated learning.
- b. The Build–Measure–Learn cycle.
- c. The iterative nature of user-centred design.
- d. Key questions to ask at the beginning of each cycle.

Guidance

What is validated learning? What are design experiments and how are they used in validated learning?

4.5 Explain the key differences between quantitative and qualitative usability research.

Indicative content

- a. Explain the differences between multivariate and A/B testing (split testing).

Guidance

Candidates should be able to explain the key differences between quantitative and qualitative usability research. When is it useful to use quantitative research such as split testing?

4.6 Explain the importance of good usability and iterative design.

Indicative content

- a. An awareness of the ISO 9241-11 definition of usability.
- b. Recall that good and bad user experiences have an emotional reaction on users.
- c. Iterative design.

Guidance

Candidates should be able to articulate how usability can be specified in terms of effectiveness, efficiency and satisfaction. They should also be able to explain the value of validated learning and why iterative design has value.

5. Information Architecture (15%, K3)

Candidates will be able to:

5.1 Recognise how information flows between a person and a product or service.

Indicative content

- a. Ensuring that users can understand the interface and find the functions, features or content they need to achieve their tasks.
- b. The resources available via the interface must be organised in a way that is adapted to the kinds of task that the users will be carrying out.
- c. The way that the system appears to work should match the way that users expect it to work, and both should match the way it actually does work.

Guidance

How can a structured experience be created from disorganised information?

5.2 Choose appropriate schemes for classifying, organising and structuring information including functions and features.

Indicative content

- a. Organising the content and functions of a user interface in a way that makes sense to users.
- b. LATCH (location, alphabet, time, category and hierarchy).

Guidance

Organise, structure and label content, functions and features.

5.3 Describe the steps in carrying out an open and a closed card sort.

Indicative content

- a. Card sorting – open and closed.
- b. Recall the key steps in conducting a card sorting exercise.

Guidance

Candidates should be able to recall the different types of card sort, understanding that a card sort can be an open card sort (no constraints) or a closed card sort (the categories into which cards are to be sorted are defined).

5.4 Compare and contrast an implementation model, a mental model and a conceptual model.

Indicative content

- a. Discuss the mental model.
- b. Understand implementation and conceptual models.

Guidance

Candidates should be able to explain what the mental model is, distinguish between implementation and conceptual models and be able to explain how they differ from a mental model.

5.5 State the concept of affordance.

Indicative content

- a. Affordance - the properties of an object that suggest to people how the object can be interacted with; the kind of interaction that is so suggested.

Guidance

Candidates should be able to recall the concept of affordance and how a key concept in information architecture is about making it obvious (or as obvious as possible) how to find what you want in a user interface.

6. Interaction Design (10%, K3)

Candidates will be able to:

6.1 Describe different user interface design patterns.

Indicative content

- a. Faceted search, pagination, infinite scrolling, breadcrumbs.
- b. Understand some of the basic principles of mobile design.

Guidance

Conventional ways of structuring user interaction at a higher level are often referred to as patterns. Understand the basic principles of mobile design. Consider touch/tap devices, tablets, mobile UI and voice interfaces such as Alexa and Siri. Understand that user interface patterns are continuously evolving and the importance of being aware of emerging patterns.

6.2 Choose the correct interactive control in a user interface design.

Indicative content

- a. Consider the importance of the correct cognitive and physical ergonomics in user interface design.
- b. The importance of making a user interface assessable, for example, for those with poor visibility or those who may struggle to use a mouse.

- c. Consider the steps of detailed cognitive and motor operations that the user has to go through in order to send a piece of information through a GUI (visual interface.) For example: finding/inputting the required information, searching the UI for the relevant control, recognising and understanding how to use the control, entering information, understanding when this is complete, recognising errors and starting again.

Guidance

Candidates should be able to choose the correct controls that would make the user interface design accessible for all users, as well as to consider those with accessibility needs.

6.3 Describe how the choice of user interface control has an impact on the time it takes users to achieve their goals.

Indicative content

- a. Fitt's Law: the time taken to move to a target is a function of the target size and the distance to the target.

Guidance

Candidates should describe how using the correct controls are important e.g., using a mouse/tracking pad can be difficult for those with motor disabilities. On touchscreens, (including mobile UI) controls need to be large enough and have enough space around them for the user to be able to touch the right area without accidentally touching something else (including users whose hands may be shaking).

6.4 Define the concept of progressive disclosure.

Indicative content

- a. Progressive disclosure: the general technique of starting by showing the user only a small set of information or interaction possibilities, and presenting other, more advanced or obscure options if the user explicitly asks for them.
- b. Progressive disclosure reduces complexity and clutter in the UI.

Guidance

Candidates should be able to recall the definition of progressive disclosure.

6.5 State the difference between interaction design and information architecture.

Indicative content

- a. Information architecture is about helping users to find the content and functions that they need in order to carry out tasks.
- b. Interaction design involves thinking about the flow of information between user and system at a detailed level.

Guidance

Candidates should be able to state the definitions of information architecture and interaction design. How are they different? Information architecture is about helping users to find the content and functions that they need in order to carry out tasks whereas interaction design (IxD) is about what happens next: how does the user interact with the system to carry out the task?

6.6 Explain why user interface consistency is an important design principle.

Indicative content

- a. The importance of using a control that the user expects to encounter.
- b. Consider how consistency, both within the system and with the users' experience of using comparable systems, will make the user interface easier to understand.

Guidance

Why is consistency important when designing the user interface?

6.7 State the importance of focusing on the user's tasks when designing the flow of a user interface.

Indicative content

- a. The goals and tasks of the users.
- b. Whether tasks are initiated by the user or the system.

Guidance

Why is it always important to keep in mind the goals and tasks of the users when designing the flow of a user interface?

7. Visual Design (10%, K2)

Candidates will be able to:

7.1 List fundamental principles of visual design.

Indicative content

- a. Visual design: the practice of devising grids, laying out pages, choosing colour palettes and developing icons.
- b. Principles of layout and formatting – PARC (proximity, alignment, repetition, contrast).

Guidance

Candidates should be able to outline the value of good page layouts. How can specific page layouts support users' reading behaviour? They should discuss the importance of understanding how people scan information on a page, as well as outline the core principles of visual design and how they can be used to remove clutter from user interfaces.

7.2 Describe the advantages and disadvantages of using metaphorical representations in visual design.

Indicative content

- a. The use of metaphors in interface design.
- b. How visual metaphors can be a helpful way of making information easier to see and understand e.g., pinboard metaphor for Pinterest, floppy disk icon for the save function.

Guidance

Candidates should be able to describe how appropriate metaphors in user interface design can bridge the gap between the user's mental model and the design's conceptual model. They should also remember that icons do not always translate well across cultures.

7.3 List the fundamental basics on web content writing.

Indicative content

- a. Describe the F-shaped reading pattern.
- b. Writing appropriate content that meets the needs of users.

Guidance

Candidates should be able to recognise the main eye tracking gaze patterns when viewing web page content. Does the written content contain the relevant information for users?

8. User Interface Prototyping (10%, K3)

Candidates will be able to:

8.1 Choose between different types of prototypes, for example paper and electronic, and recall the merits of each.

Indicative content

- a. Be aware of the benefits of different types of prototypes e.g., paper and electronic.
- b. High and low-fidelity user interface prototyping.

Guidance

Candidates should be able to choose from a range of prototypes such as wireframes, sketches, mock-ups. Practice the concept of interactive paper prototyping. What are the benefits of each?

8.2 Recognise the appropriate type of prototype for the phase of design.

Indicative content

- a. Recognise that a prototype is the representation of all or part of an interactive system, that, although limited in some way, can be used for analysis, design and evaluation (ISO 9241-210, 2019).
- b. Evolutionary and throwaway prototypes.
- c. Horizontal and vertical prototypes.
- d. Interactive prototypes.
- e. Paper prototypes.

Guidance

The purpose of a prototype is to support validated learning by asking and answering design questions. Does the prototype selected ask and answer the relevant design questions? Remember that there are many digital tools available to support with prototyping, such as wireframing.

8.3 Recognise the importance of identifying multiple different design solutions before deciding on a specific design solution.

Indicative content

- a. The importance of creating several different ideas at every stage, and carefully compare their relative strengths and weaknesses before deciding on one solution.
- b. The benefits of creating many different design solutions – the ability to see the comparative benefits of different solutions, their drawbacks.

Guidance

User-centred design is a cyclical activity that involves continual experimentation – prototypes are an important part of this cycle. Candidates should articulate clearly the learning objectives of every prototype: what are we planning to learn, and how?

9. Usability Evaluation (20%, K3)

Candidates will be able to:

9.1 State the difference between a usability inspection and a usability test.

Indicative content

- a. Usability testing involves having users work with the product or prototype and attempt to carry out tasks.
- b. Usability inspection can be carried out by one or more individuals within the design team, without needing to involve any test participants.

Guidance

Candidates should be able to recall the difference between a usability inspection and a usability test.

9.2 Recall Nielsen's Usability Heuristics and have an awareness of other usability principles.

Indicative content

- a. Visibility of system status.
- b. Match between system and the real world.
- c. User control and freedom.
- d. Consistency and standards.
- e. Help users recognise, diagnose and recover from errors.
- f. Error prevention.
- g. Recognition rather than recall.
- h. Flexibility and efficiency of use.
- i. Aesthetic and minimalist design.
- j. Help and documentation.

Guidance

Candidates should be able to list Nielsen's Usability Heuristics. Recall other usability principles such as Ben Shneiderman et al. (2016). Define eight 'golden rules' of user interface design. Susan Weinschenk and Dean Barker (2000) provide a list that has been adapted to be suitable for speech interfaces.

9.3 Plan usability evaluations to test design hypotheses.

Indicative content

- a. Identify research questions that need to be answered.
- b. Identify and recruit some test participants.
- c. Devise test tasks and scenarios that will answer the questions.
- d. Prepare the environment for running the test.
- e. Moderate the test.
- f. Observe participants.
- g. Record your findings.
- h. Prioritise the issues.

Guidance

Candidates should be able to articulate and use the steps above to test design hypotheses.

9.4 Moderate a usability test.

Indicative content

- a. Put participants at their ease.
- b. Obtain informed consent.
- c. Ask any questions.
- d. Train participant in thinking aloud.
- e. Observe behaviour as participant performs tasks.
- f. Debrief and administer satisfaction survey.

Guidance

Candidates should be able to articulate the key steps in conducting a usability test.

9.5 Choose between good and poor tasks for a usability test.

Indicative content

- a. Test tasks should be oriented towards real user goals.
- b. Tasks should be meaningful, and represent tasks the users would do in the real world.
- c. Each task should have the success criteria defined.

Guidance

What does it mean to say that the task was carried out successfully? What is the success criteria of the test? Be aware of common pitfalls in usability testing (such as focusing on opinions at the expense of behaviours).

9.6 Record the data from usability evaluations.

Indicative content

- a. The importance of defining tasks clearly, including success criteria, to make recording the results easier.
- b. Formal (e.g. spreadsheets) and informal recording (e.g. sticky notes).

Guidance

Candidates should be able to record observations from a usability study. What happened when the users tried to carry out their tasks? Understand that a formal approach works best for a summative test and an informal approach for formative tests.

9.7 Interpret the data from usability tests to distinguish high and low severity usability problems.

Indicative content

- a. Usability issues can be categorised according to: impact, frequency and persistence.
- b. High impact affects the completion rate of tasks.
- c. Frequency measures how often the issued occurred, how many participants encountered it.
- d. Persistence measures the extent to which it disrupts the system.

Guidance

Candidates should be able to articulate the impact, frequency and persistence of any usability issues encountered. Test results can be assigned a priority of critical, serious, medium or low, depending on how many of the following criteria they score highly on: impact, frequency and persistence.

9.8 State the difference between observation and interpretation.

Indicative content

- a. Recall the difference between observation and interpretation.
- b. The importance of recording the factual events, what the user saw and heard, rather than the designer's interpretation of events.

Guidance

What is the difference between observation and interpretation? Why is it initially important to observe and record the factual events rather than the designer's interpretation of these events?

9.9 Identify W3C's Web Content Accessibility Guidelines as an important standard in the field of web accessibility.

Indicative content

- a. Perceivable: the user must have access to the content and controls in a form that they can perceive.
- b. Operable: it must be possible for the user to operate the navigation and other controls with a device that they are able to use, such as the keyboard.
- c. Understandable: the user must be able to read or hear and interpret the text that is presented, and predict the way the system will respond to their actions.
- d. Robust: the content must be coded in such a way that it can be interpreted by a wide range of device software, including assistive technology.

Guidance

Candidates should be able to recall W3C's Web Content Accessibility Guidelines.

Examination Format

This certificate is assessed through completion of an invigilated online exam which candidates will only be able to access at the date and time they are registered to attend.

| | |
|-------------------|--|
| Type | 40 multiple choice questions |
| Duration | 60 minutes |
| Supervised | Yes |
| Open Book | No (no materials can be taken into the examination room) |
| Passmark | 26/40 (65%) |
| Delivery | Digital or paper based |

Adjustments and/or additional time can be requested in line with the [BCS reasonable adjustments policy](#) for candidates with a disability, or other special considerations including English as a second language.

Question Weighting

Each major subject heading in this syllabus is assigned a percentage weighting. The purpose of this is:

1. Guidance on the proportion of content allocated to each topic area of an accredited course.
2. Guidance on the proportion of questions or marks in the exam.

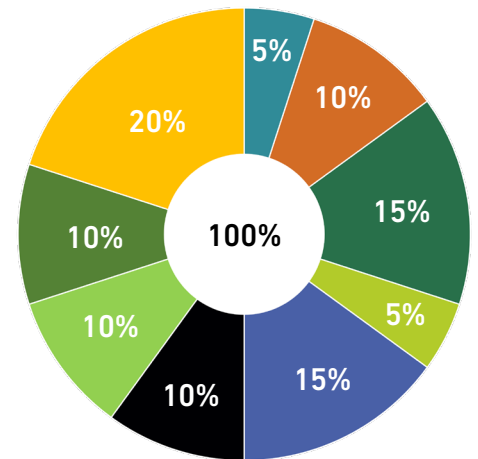
Syllabus Area

| | |
|---|-----|
| ■ 1. Guiding Principles | 5% |
| ■ 2. User Research | 10% |
| ■ 3. Documenting User Research Findings | 15% |
| ■ 4. Measuring Usability | 5% |
| ■ 5. Information Architecture | 15% |
| ■ 6. Interaction Design | 10% |
| ■ 7. Visual Design | 10% |
| ■ 8. User Interface Prototyping | 10% |
| ■ 9. Usability Evaluation | 20% |

Question types

Only multiple choice will be used.

Syllabus Weighting



Recommended Reading

The following resources and titles are suggested reading for anyone undertaking this award. Candidates should be encouraged to explore other available sources.

Title User Experience Foundations
Authors Nick de Voil
Publisher BCS, Learning and Development Limited
Date Published 2020
ISBN 978-1-78017-3504

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Document 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 changes made. The purpose is to identify quickly what changes have been made.

| Version Number | Changes Made |
|--------------------------------------|---|
| Version 1.0 November 2021 | Document Creation |
| Version 1.1 March 2022 | Syllabus version updated to V1.4. Date updated. |
| Version 1.2 May 2022 | Text 'This is a United Kingdom government regulated qualification which is administered and approved by one or more of the following: Ofqual, Qualifications Wales, CCEA Regulation or SQA' removed from front cover. |

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