Qualification Specification Guide

BCS Higher Education Qualifications Specification

BCS Certificate in IT
BCS Diploma in IT
BCS Professional Graduate Diploma in IT

Version 5.3
June 2020

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
CONTENTS

1. About BCS .................................................................................................................. 3
2. Equal Opportunities ..................................................................................................... 3
3. Introduction to the Qualification .................................................................................. 3
4. Structure and Purpose of the Qualification ................................................................. 4
5. Entrance Requirements ............................................................................................... 4
6. Exemptions .................................................................................................................. 5
7. Accreditation of Prior Learning .................................................................................. 5
8. Individual Exemptions ................................................................................................. 5
9. Access to Assessment .................................................................................................. 5
10. Units .......................................................................................................................... 6
11. Learning Delivery ....................................................................................................... 10
12. Approved Provider ..................................................................................................... 10
13. Accredited Provider ................................................................................................... 10
14. Self-Study .................................................................................................................. 10
15. Course Material ......................................................................................................... 10
16. Summary of Assessment Methods and Grading ....................................................... 11
17. Availability of Assessments ....................................................................................... 12
18. Resources .................................................................................................................. 12
19. Support Materials ....................................................................................................... 12
20. Regulatory Framework ............................................................................................... 12
21. Contact ...................................................................................................................... 13
22. Glossary ..................................................................................................................... 13
1. About BCS

Our mission as BCS\(^1\), The Chartered Institute for IT, is to enable the information society. We promote wider social and economic progress through the advancement of information technology science and practice. We bring together industry, academics, practitioners and government to share knowledge, promote new thinking, inform the design of new curricula, shape public policy and inform the public.

Our vision is to be a world class organisation for IT. Our 70,000-strong membership includes practitioners, businesses, academics and students in the UK and internationally. We deliver a range of professional development tools for practitioners and employees. A leading IT qualification body, we offer a range of widely recognised qualifications.

2. Equal Opportunities

BCS wishes to ensure good practice in Equal Opportunities. Equality of opportunity extends to all aspects for the provision of BCS qualifications. Further information about our equal opportunities policy can be found on the BCS website [www.bcs.org](http://www.bcs.org).

3. Introduction to the Qualification

Higher Education Qualifications HEQ is accredited by Ofqual\(^2\) is part of the Regulated Qualifications Framework (RQF)\(^3\) at Higher Education Levels 4, 5 and 6.

<table>
<thead>
<tr>
<th>Qualification Name</th>
<th>QAN</th>
<th>Qualification Title</th>
<th>Total Qualification Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate in IT</td>
<td>100/6181/2</td>
<td>BCS Level 4 Certificate in IT</td>
<td>734</td>
</tr>
<tr>
<td>Diploma in IT</td>
<td>100/6190/3</td>
<td>BCS Level 5 Diploma in IT</td>
<td>1086</td>
</tr>
<tr>
<td>Professional Graduate Diploma in IT</td>
<td>100/6191/5</td>
<td>BCS Level 6 Professional Graduate Diploma in IT</td>
<td>1414</td>
</tr>
</tbody>
</table>

All BCS qualifications are subject to our quality assurance and validation process is to ensure that new and revised qualifications are fit for purpose. Qualifications are reviewed to ensure the alignment of the qualification with agreed design principles, regulatory requirements and to ensure accuracy and consistency across units and qualifications. Through our quality assurance and validation process we ensure the qualification, its units and assessments are fit for purpose and can be delivered efficiently and reasonably by Centre’s.
4. **Structure and Purpose of the Qualification**

BCS HEQ is a three-stage UK undergraduate degree equivalent program of learning aimed at students with more limited IT knowledge, qualifications and professional experience to allow them to progress up to higher levels of knowledge and competency. HEQ is mapped into the BCS SFIAplus® skills framework. HEQ is also one way of gaining entry to higher levels of BCS membership.

Successful completion of the BCS HEQ Level 4 Certificate in IT will qualify for entry to the Level 5 Diploma in IT.

Successful completion of BCS HEQ Level 5 Diploma will qualify for entry to the Level 6 Professional Graduate Diploma in IT.

Depending on entrance conditions this may support entry on to a Master’s degree course in selected global universities.

The objectives of HEQ are:

- To increase levels of competency and knowledge up to degree level
- To provide access to a Master’s qualification at a partner University
- To provide a route to BCS membership²

5. **Entrance Requirements**

**Standard Route**

A pre-requisite of registering for all HEQ examinations is that the student must become a student member of BCS (unless already a BCS member).

**Certificate in IT**

There are no specific entrance requirements for the Certificate in IT. However, each Centre will apply some criteria to assess student competency and ability in completing the Certificate level. Exemption applications can only be for one unit out of the total number of three mandatory units of this course.

**Diploma in IT**

The student must have successfully completed all mandatory units and achieved the Level 4 Certificate in IT, or been given discretion to continue pending a re-sit of a unit, or have an appropriate exemption qualification of up to 50% only to be entered for the Diploma in IT.

**Professional Graduate Diploma in IT**

The student must have achieved the Diploma in IT, or been given discretion to continue pending a re-sit of a unit, or have an appropriate exemption qualification of up to 50% only to be entered for the Professional Graduate Diploma in IT.
6. **Exemptions**

All students are eligible for exemptions. Normally a student will start at Certificate level and progress through each level in succession, however, in some circumstances exemptions are offered that allow students to omit certain units (up to 50% of the total number of units) with exception of the Professional Project at Level 5 and Level 6.

There are several vocational and professional qualifications that may enable students to gain entry at a higher point in the HEQ program, or to gain automatic exemptions in specific units.

BCS allows two routes to exemption for HEQ:
- Accreditation of Prior Learning (APL)
- Individual Exemption

7. **Accreditation of Prior Learning**

A list of qualifications approved under the APL scheme is maintained by BCS and is available on request. The qualifications included in the APL list have been subject to a detailed review and approved by the BCS to ensure that the qualifications are at a suitable level and contain suitable content for exemption to be granted.

Exemption will be granted only based on the qualifications approved, if the qualification has been completed, passed and sufficient and appropriate evidence has been supplied to BCS.

8. **Individual Exemptions**

In certain circumstances BCS may grant individual exemptions based on other qualifications and experience not listed in the APL scheme. An individual exemption is granted solely at the discretion of BCS on a case by case basis.

9. **Access to Assessment**

BCS seeks to provide equal Access to Assessment for all students, ensuring that there are no unnecessary barriers to assessment and that any reasonable adjustments for students preserve the validity, reliability and integrity of the qualification.

All assessment will be through the medium of English and consideration will be given to requests from BCS approved Centre's for reasonable adjustments to be approved for a student. The decision will be based on the individual needs of the student as assessed by suitably qualified professionals. In promoting this policy, BCS aims to ensure that any student is not disadvantaged in relation to other students and their award accurately reflects their attainment.

For further information about our access to assessment policy can be found on the BCS website [https://www.bcs.org/contact-us/accessibility/](https://www.bcs.org/contact-us/accessibility/)
10. Units

10.1 Certificate in IT

All 3 mandatory units need to be passed to gain the qualification.

### Mandatory Units

<table>
<thead>
<tr>
<th>Unit Title</th>
<th>Ofqual Unit Code</th>
<th>Guided Learning Hours</th>
<th>Assessment Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Systems</td>
<td>Y/503/6232</td>
<td>200</td>
<td>Written Examination</td>
</tr>
<tr>
<td>Computer and Network Technology</td>
<td>H/503/6234</td>
<td>200</td>
<td>Written Examination</td>
</tr>
<tr>
<td>Software Development</td>
<td>D/503/6233</td>
<td>200</td>
<td>Written Examination</td>
</tr>
</tbody>
</table>
### 10.2 Diploma in IT

1 or 2* mandatory units and 3 units from a choice of 9 optional units

#### Mandatory Units

<table>
<thead>
<tr>
<th>Unit Title</th>
<th>Ofqual Unit Code</th>
<th>Guided Learning Hours</th>
<th>Assessment Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Project in IT *</td>
<td>K/503/6008</td>
<td>200</td>
<td>Practical Demonstration / Assignment</td>
</tr>
<tr>
<td>Professional Issues in IS Practice</td>
<td>R/503/5998</td>
<td>225</td>
<td>Written Examination</td>
</tr>
</tbody>
</table>

#### Optional Units

<table>
<thead>
<tr>
<th>Unit Title</th>
<th>Ofqual Unit Code</th>
<th>Guided Learning Hours</th>
<th>Assessment Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big Data Management***</td>
<td>M/618/1898</td>
<td>225</td>
<td>Written Examination</td>
</tr>
<tr>
<td>Computer Networks</td>
<td>Y/503/5999</td>
<td>225</td>
<td>Written Examination</td>
</tr>
<tr>
<td>Database Systems</td>
<td>A/503/6000</td>
<td>225</td>
<td>Written Examination</td>
</tr>
<tr>
<td>IT Project Management</td>
<td>J/503/6002</td>
<td>225</td>
<td>Written Examination</td>
</tr>
<tr>
<td>IT Service Management **</td>
<td>L/503/6003</td>
<td>225</td>
<td>Written Examination</td>
</tr>
<tr>
<td>Object Oriented Programming</td>
<td>Y/503/6005</td>
<td>225</td>
<td>Written Examination</td>
</tr>
<tr>
<td>Principals of Internet Technologies</td>
<td>F/503/6001</td>
<td>225</td>
<td>Written Examination</td>
</tr>
<tr>
<td>Principals of User Interface Design **</td>
<td>H/503/6007</td>
<td>225</td>
<td>Written Examination</td>
</tr>
<tr>
<td>Smart Systems***</td>
<td>T/618/1899</td>
<td>225</td>
<td>Written Examination</td>
</tr>
<tr>
<td>Software Engineering 1</td>
<td>R/503/6004</td>
<td>225</td>
<td>Written Examination</td>
</tr>
<tr>
<td>Systems Analysis and Design</td>
<td>D/503/6006</td>
<td>225</td>
<td>Written Examination</td>
</tr>
<tr>
<td>User Experience***</td>
<td>H/618/1896</td>
<td>225</td>
<td>Written Examination</td>
</tr>
<tr>
<td>Web Application Development***</td>
<td>D/618/1900</td>
<td>225</td>
<td>Written Examination</td>
</tr>
</tbody>
</table>
*The Professional Project is only required if the student wishes to finish at Level 5.
** This module will be retired in 2020 and the last examination session will be held in November 2020, with a final opportunity for re-sit in May 2021.
10.3 Professional Graduate Diploma (PGD) in IT

1 Mandatory unit and 4 units from a choice of 12 optional units.

**Mandatory Unit**

<table>
<thead>
<tr>
<th>Unit Title</th>
<th>Unit Code</th>
<th>Guided Learning Hours</th>
<th>Assessment Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Project in IT</td>
<td>M/503/6009</td>
<td>300</td>
<td>Practical Demonstration/Assignment</td>
</tr>
</tbody>
</table>

**Optional Units**

<table>
<thead>
<tr>
<th>Unit Title</th>
<th>Unit Code</th>
<th>Guided Learning Hours</th>
<th>Assessment Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Database Management Systems</td>
<td>H/503/6010</td>
<td>250</td>
<td>Written Examination</td>
</tr>
<tr>
<td>Computer Services Management</td>
<td>K/503/6011</td>
<td>250</td>
<td>Written Examination</td>
</tr>
<tr>
<td>Knowledge Based Systems **</td>
<td>T/503/6013</td>
<td>250</td>
<td>Written Examination</td>
</tr>
<tr>
<td>Management Information Systems</td>
<td>A/503/6014</td>
<td>250</td>
<td>Written Examination</td>
</tr>
<tr>
<td>Network Information Systems</td>
<td>F/503/6015</td>
<td>250</td>
<td>Written Examination</td>
</tr>
<tr>
<td>Programming Paradigms</td>
<td>J/503/6016</td>
<td>250</td>
<td>Written Examination</td>
</tr>
<tr>
<td>Software Engineering 2</td>
<td>L/503/6017</td>
<td>250</td>
<td>Written Examination</td>
</tr>
<tr>
<td>Realising the User Interface **</td>
<td>L/503/6020</td>
<td>250</td>
<td>Written Examination</td>
</tr>
<tr>
<td>System Design Methods</td>
<td>R/503/6018</td>
<td>250</td>
<td>Written Examination</td>
</tr>
<tr>
<td>Web Engineering</td>
<td>Y/503/6019</td>
<td>250</td>
<td>Written Examination</td>
</tr>
<tr>
<td>IT and the Environment</td>
<td>R/503/5810</td>
<td>250</td>
<td>Written Examination</td>
</tr>
</tbody>
</table>

** This module will be retired in 2020 and the last examination session will be held in November 2020, with a final opportunity for re-sit in May 2021.
11. Learning Delivery

HEQ IT qualifications are delivered through approved Centres and through Self-Study. There are two levels of approved Centres, Approved and Accredited. Details of which can be found on the BCS website https://www.bcs.org/get-qualified/international-higher-education-qualifications-heq/find-an-approved-training-centre/.

12. Approved Provider

A course provider becomes an approved provider (Centre) when a successful review has been completed by BCS. At this level, BCS is concerned only with the course provider’s ability to deliver the course satisfactorily, based on documentary evidence. An approved Centre may only be approved to deliver certain level and units based on their choice and their ability to do so.

13. Accredited Provider

An Accredited Provider (Centre) is one that has undergone further scrutiny to review teaching methods, course structure and soundness of the business.

14. Self-Study

All students have the option to take HEQ Examinations based on a course of self-study. Limited support is available from BCS for students undertaking this method of learning.

15. Course Material

Course Material is supplied by the Centre.

The syllabus and a unit description with a recommended reading list are provided on the BCS website. Much of the reading material is available directly from the BCS book supply service.

Past examination papers with model answers and examiners comments are available to student members and Course Providers.
16. Summary of Assessment Methods and Grading

The Assessment methods for these qualifications are:

For L4 Certificate in IT -
**Written examinations under exam conditions.** The pass mark for each module is 40%.

For L5 Diploma in IT & Level 6 Professional Graduate Diploma in IT-
**Written examinations under exam conditions.** The pass mark for each module is 40%.

**Written Assignment**

Please note: Whilst BCS would not normally want to make changes to either grade thresholds or grading algorithms there is potential for them to change in order to maintain standards.

**Professional Project (Diploma in IT Level)**

The Professional Project should involve the development of a computer-based solution to a practical problem. This will normally, but not necessarily involve the student in the production of software.

The Professional Project may be part of a group project, but each student must individually satisfy all the requirements and the report must clearly identify the student's individual contribution.

The size of the report should be approximately 5,000 words excluding appendices and be submitted with an authentication form.

**Professional Project (Professional Graduate Diploma in IT Level)**

The Professional Project should involve the development of a computer-based solution to a practical problem. The report must put the problem in context, include a survey of relevant literature, and provide a list of references.

The Professional Project should be an individual piece of work undertaken by the student alone. Group projects are not allowed.

The size of the report should be approximately 10,000 words excluding appendices and be submitted with an authentication form.

The Professional Project in IT for both the Diploma in IT and the Professional Graduate Diploma in IT are each graded, Pass, Credit or Distinction.

The Overall Grading for the Certificate in IT, Diploma in IT and the Professional Graduate Diploma in IT is Pass.
17. Availability of Assessments

The examinations are held twice a year and are undertaken in normal examination conditions with one or more duly appointed invigilators.

Exam Centre locations are not fixed and are at the discretion of BCS. BCS will endeavour to locate examinations at standard examination centres. A list of standard examination centres in the UK and overseas is available on the BCS website. Occasionally it may be necessary to book a special exam venue and in that instance a surcharge will be payable to BCS, details of which are on the website https://www.bcs.org/get-qualified/higher-education-qualifications-heq/register-for-an-exam/.

18. Resources

The following resources are available on the BCS website https://www.bcs.org/get-qualified/higher-education-qualifications-heq/past-papers-and-exam-reports/:

- Sample papers
- Specimen answer pointers
- Past assessment papers
- Examiners report of past assessments

19. Support Materials

The following resources are available on the BCS website https://www.bcs.org/get-qualified/international-higher-education-qualifications-heq/

- Regulations
- General Guidance Notes
- Guidance Notes for the Professional Project in IT
- Submission Guidance for the Professional Project in IT
- Guidance notes for Authenticators
- A list of examination venues in the UK
- A list of examination venues overseas
- Candidate venue instructions
- Examination techniques
- Timetable of examinations

20. Regulatory Framework

HEQ is subject to the regulatory requirements of the territories where it is taught. For the UK, this is regulated by Ofqual\(^2\). For Sri Lanka, this is the TVEC\(^5\).
21. Contact
BCS Customer Services are committed to providing you with professional service and support at all times through a single, dedicated point of contact. With a flexible and proactive approach, our team will work together with you to ensure we deliver quality solutions that are right for you.

BCS, The Chartered Institute for IT
3 Newbridge Square, Swindon SN1 1BY, United Kingdom

T: +44 (0) 1793 417417
W: https://www.bcs.org/contact-us/

22. Glossary

1. **BCS, The Chartered Institute for IT** has several levels of membership. It represents the IT profession as a group to Government and other institutions. It promotes professionalism and continuous development to its membership.


3. **The Regulated Qualifications Framework** (RQF) helps students to make informed decisions about the qualifications they need. They can compare the levels of different qualifications and identify clear progression routes for their chosen career.

4. **SFIAplus** is a BCS proprietary extension of an industry initiative **Skills Framework for the Information Age** (SFIA), a model for describing and managing competencies for ICT professionals. The SFIA is maintained by the SFIA Foundation.

5. **TVEC** is the **Tertiary & Vocational Education Commission** in Sri Lanka. It is part of the Ministry of Skills Development and Vocational Training.