



# **BCS Higher Education Qualifications**

## **Professional Graduate Diploma in IT**

### **Professional Project in IT Syllabus**

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This qualification is regulated by one or more of the following: Ofqual, Qualifications Wales, CCEA Regulation or SQA.

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## 1. Rationale

This module provides the candidate with the opportunity to demonstrate practical skills in the creation, design, implementation, testing and documentation of a computer-based project, at the Professional Graduate Diploma level.

## 2. Aims

- To allow candidates to undertake a significant piece of individual work.
- To allow candidates to demonstrate their practical computing skills.

## 3. Objectives

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

- Identify and investigate a topic which has a computer-based solution.
- Research the literature, evaluate possible solutions, and select the most appropriate solution.
- Evaluate any legal, social, ethical or professional implications of the solution.
- Use project management techniques to plan the development of the solution.
- Use appropriate techniques and technologies to design and implement the solution.
- Identify and apply appropriate methods to demonstrate the fitness for purpose of the solution, providing full evidence in the project report.
- Document both the process undertaken and the product produced, including a critical appraisal of both.

## 4. 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.

## 5. Format and Duration of the Examination

Candidates are expected to complete the work associated with this module in their own time and submit their project report for assessment at one of two assessment points in the year. Candidates are expected to spend approximately 300 hours on their project.

A project proposal must be submitted, and approved by Project Examiners, before the project can be submitted.

The project must be an individual piece of work.

Candidates are responsible for finding an authenticator to provide guidance as necessary, and to authenticate the project as the personal work of the candidate. Authenticators are subject to approval by Project Examiners.

Projects are assessed as either Pass with Distinction, Pass with Credit, Pass or Fail.

## 6. Syllabus Detail

Category	Ref	Content
1 Select a topic and plan the work	1.1	Investigate a problem and identify the needs of users of the computer-based solution.
	1.2	Produce a specification of the requirements.
	1.3	Identify milestones to provide project management.
	1.4	Produce a formal proposal to a professional standard for an individual project.
2 Compare possible solutions	2.1	Critically evaluate contemporary solutions to given problems.
	2.2	Select the best solution for a given situation, considering resource and other constraints, and justify the selected approach.
3 Design and implement the chosen solution	3.1	Evaluate, select and apply appropriate technologies and techniques to the stages of the problem solution.
	3.2	Evaluate appropriate legal, social, ethical and professional implications of the problem solution.
4 Evaluate the fitness for purpose of the solution created	4.1	Compare a range of mechanisms for demonstrating the value of a project and rank them according to appropriately selected criteria.
	4.2	Select and apply an appropriate means of testing the fitness for purpose of the project.
	4.3	Provide evidence of the fitness for purpose.
	4.4	Critically evaluate the effectiveness of the developed solution.
5 Document the project to an appropriate professional level	5.1	Produce a detailed and coherent project report to a professional level of presentation.
	5.2	Produce an in-depth critical appraisal of both the product and the process of the project, including personal reflection.
	5.3	Evaluate how the solution and process might be improved in future.

## 7. Recommended Reading List

While most projects involve software development there is still a large variation in project type. Similarly, the actual process of software development also varies between projects. No single reference book would be appropriate for all projects. However, useful overall guidance may be found in:

Dawson, C. W. (2009). *Projects in Computing and Information Systems: A Student's Guide* (2nd ed.). London: Addison Wesley.

Most candidates undertake this module as part of a preparation courses and have been taught specific software development methods. Some candidates submit a project they have undertaken for their employer and will have already followed company-specific standards for process and documentation. A few projects do not involve software development and might need a different approach to process and documentation.

Project examiners will accept a variety of documentation approaches. However, all candidates are recommended to read the guidance on the BCS website about the required elements of a project report. It might be necessary for a candidate to supplement college-specific or company-specific documentation to provide all the necessary elements of a BCS project report. Candidates are strongly advised to seek guidance from their authenticator on the best approach to documentation.

## 8. Contact Points

### Email:

Customer Service team via <https://www.bcs.org/contact-us>

### Phone:

UK: 01793 417417

Overseas: +44 (0)1793 417417

Lines are open Monday to Friday, 08.15 a.m. to 5.15 p.m. UK time.

### Website:

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

### Post:

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