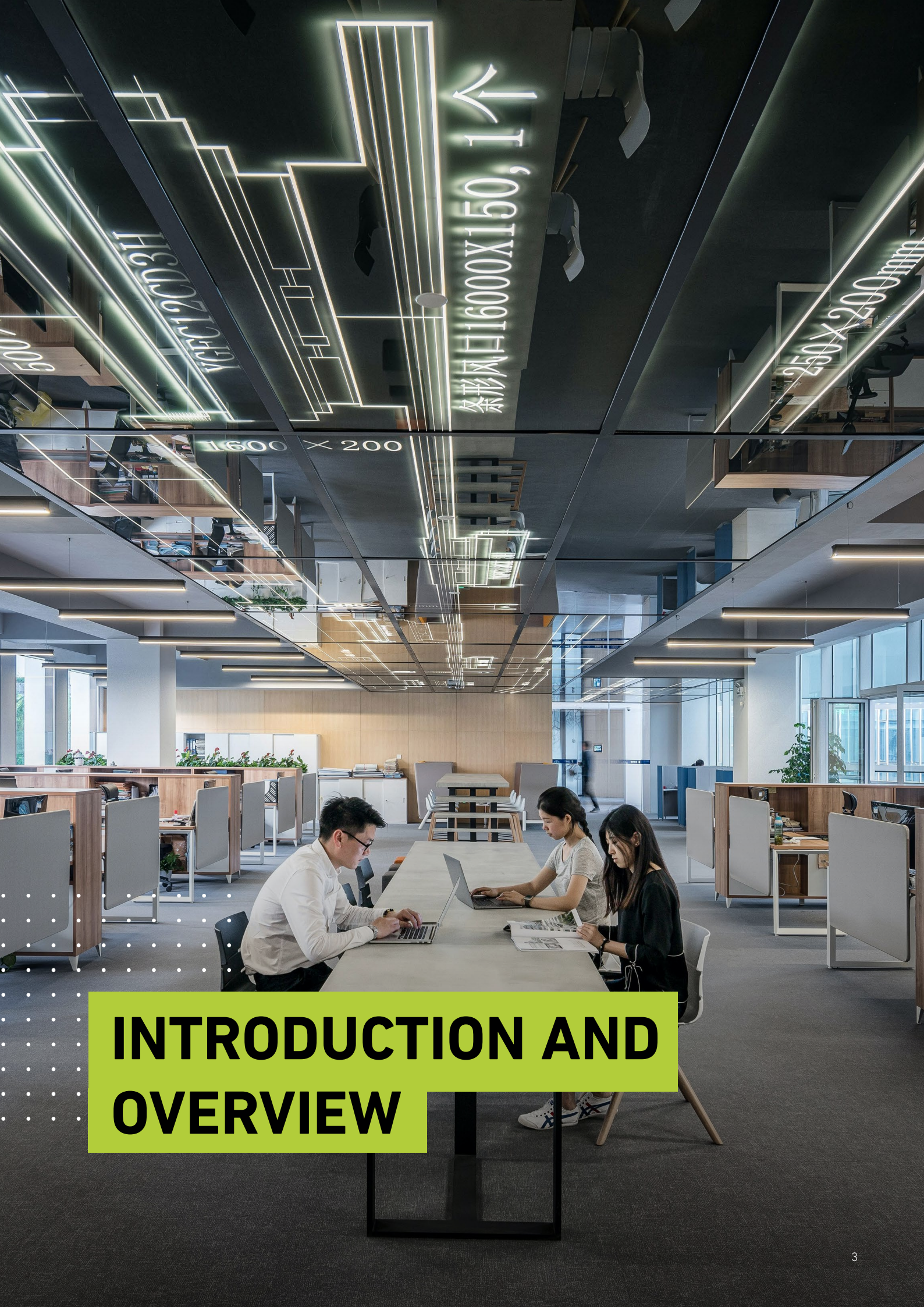# DIGITAL PRODUCT
MANAGEMENT

BCS PRACTITIONER CERTIFICATE

This professional certification is not regulated by the following United Kingdom Regulators - Ofqual, Qualifications Wales, CCEA or SQA.

CONTENTS

INTRODUCTION AND OVERVIEW

INTRODUCTION

With many organisations moving from project to product delivery as a way to continuously integrate and deliver new features and capabilities to the business, there is an ever-increasing need for professionals working in product to be equipped with the knowledge, skills and behaviours necessary to step into the role of digital product manager at practitioner level.

This certificate encourages individuals in both technical and non-technical product-related roles to develop the practical behaviours required to succeed in leading a product project or team.

Candidates will explore strategies for effective stakeholder management and problem solving techniques that support successful product outcomes, and be able to adopt product development methodologies that can be applied in a wide range of situations.

LEARNING OUTCOMES

By completing this certificate learners will be able to demonstrate a practical understanding of:

- Effective stakeholder management and communication techniques

- How to analyse the internal and external environment and undertake market analysis

- The product delivery lifecycle

- Product development techniques

- Methods and techniques of marketing

QUALIFICATION SUITABILITY AND OVERVIEW

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

This certificate is suitable for candidates who are currently in, or working towards, a product management or product development related role or a digital role. In particular, candidates who want to demonstrate problem solving and professional behaviours when dealing with stakeholders and managing challenging situations arising during the product development lifecycle will benefit from this certificate.

This is a standalone certificate that is occupationally focused and will:

- Encourage learners to consider their behaviour and response in various scenarios.
- Allow learners to demonstrate a practical understanding of key concepts across the topic areas.
- Enable learners 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	GUIDED LEARNING HOURS	INDEPENDENT LEARNING	ASSESSMENT TIME
45 hours	30 hours	15 hours	90 minutes

TRAINER CRITERIA

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

- A relevant qualification in Digital Product Management or another, relevant discipline.
- Training experience or have a 'Train the Trainer' qualification.
- A minimum of 3 years practical experience in the subject area.

SFIA LEVELS

This syllabus will provide candidates with the levels of difficulty/knowledge highlighted within the following table, enabling them to develop the skills to operate at the levels of responsibility indicated.

LEVEL	LEVELS OF KNOWLEDGE	LEVELS OF SKILLS 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

This syllabus has been linked to the SFIA knowledge skills and behaviours required at level 4 for an individual working in Digital Product Management.

For further information regarding the SFIA Levels
Levels of Knowledge, Skill and Responsibility

SFIA*PLUS*

This syllabus has been linked to the SFIA knowledge, skills and behaviours required at level 4 for an individual working in product management.

KSB04

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

KSB012

Understanding commercial considerations and ensuring alignment with them when making decisions or recommending actions.

KSB13

Understanding the needs of the internal or external customer and keeping these in mind when taking actions or making decisions.

KSB15

Taking innovative approaches to problem solving and/or devising inventive and creative solutions.

KSB24

Working collaboratively with others to achieve a common goal.

KSB28

Checking progress against targets, taking action to resolve exceptions/ issues and reporting and escalating where necessary.

KSC38

The business environment relating to own sphere of work (own organisation and/or closely associated organisations, such as customers, suppliers, partners and competitors), in particular those aspects of the business that the specialism is to support (i.e. localised organisational awareness from a technical perspective).

KSC39

The IT environment relating to own sphere of work (own organisation and/or closely associated organisations, such as customers, suppliers, partners), in particular own organisation's technical platforms and those that interface to them through the specialism, including those in closely-related organisations.

KSC40

The analytical comparison of IT products against specified criteria (including costs) to determine the solution that best meets the business need.

KSC84

Understanding and application of different development approaches e.g. iterative/incremental methodologies (Agile, XP, TDD, SCRUM) or traditional sequential methodologies (Waterfall or V-Model). Irrespective of development methodology a DevOps approach may also be taken where development and operational staff work collaboratively.

KSCA7

A collection of methods, practises, tools and techniques, underpinned by the Agile Manifesto, that enable teams to deliver high value products and services in small, workable, increments. An Agile culture typically encompasses concepts such as Servant-Leaders; ceremonies, Stand-Ups, Sprints and Retrospectives; and the deployment of tools and techniques such as Backlogs and A/B Testing.

KSD03

Identification and representation of the primary and support activities required to deliver a product or service in order to analyse aspects such as inefficiencies and costs.

KSD08

Methods and techniques of marketing.

KSD15

Principles, methods, techniques and tools for the preparation and monitoring of budgets to manage costs and ensure cost-effectiveness and value for money.

KSD31

Methods and techniques associated with planning and monitoring progress of projects.

KSD32

Techniques for the systematic design, collection, analysis and reporting of data and findings relevant to specific markets.

KSD45

The economics of service delivery, such as the cost per service line in terms of hardware, software, and manpower used to deliver the service.

SYLLABUS

SYLLABUS

1. EFFECTIVE STAKEHOLDER MANAGEMENT AND COMMUNICATION TECHNIQUES 15% K4

1.1 **Describe the role of the Product Manager.**

Indicative content

a. Deliver solutions to meet market needs.
b. Customer representation.
c. Market and customer research.
d. Marketing techniques.
e. Sales and finance.
f. Development processes.
g. Regulatory requirements.

Guidance

The scope within which product managers (PMs) operate is diverse and their role involves a multitude of skills, knowledge and behaviours they need to demonstrate. PMs work in cross-functional teams, for example with program managers, architects, engineering managers, product developers, quality assurance, user experience and operations staff. They apply their skills to navigate through divergent perspectives, whilst representing the customers' wants and needs and keeping in line with organisational strategy.

PMs need to employ effective techniques to ensure that product goals are achieved on time, and stakeholders are informed of progress. To accomplish this, they act as the mainstay of the team, providing support and removing blockers (e.g. people, dependency, feedback loop, communication, technical blockers) that are potential barriers to success.

1.2 Identify stakeholder categories using the stakeholder wheel.

Indicative content

a. Partners.
b. Suppliers.
c. Regulators.
d. Employees.
e. Managers.
f. Owners.
g. Competitors.
h. Customers.

Guidance

Identifying stakeholders is a key first step in stakeholder management, and the stakeholder wheel can be used to appropriately categorise them.

As well as identifying the position of the product manager among all stakeholders, candidates should be able to identify where product owners and coaches (previously Scrum masters) sit on the stakeholder wheel and what the role of the digital product manager is.

Effective management of stakeholders is essential to building postive working relationships and can boost the likelihood of successful outcomes by breaking down barriers. Ensuring that all stakeholders are included in the relevant conversations, appropriate communication methods and language are used, and that all parties' views are considered, supports the building of an inclusive environment.

STAKEHOLDERS

EFFECTIVE DIGITAL PRODUCT MANAGEMENT IS ABOUT IDENTIFYING CUSTOMER NEEDS WITHIN THE DIGITAL AND ONLINE SPACE.
BCS COURSEWARE

1.3 **Apply effective methods to communicate with stakeholders at various levels.**

Indicative content

a. Verbal communication.
b. Written communication.
c. Emotional intelligence.
d. Cultural awareness.

Guidance

Through effective and sustainable stakeholder collaboration, communication and stakeholder relationship management, digital product managers have the capability to drive projects forwards.

In order to gain stakeholder buy-in, it is important that managers communicate their vision convincingly, whilst emotional intelligence and cultural awareness offer a layer of understanding that enhances working relationships.

Candidates are expected to be able to communicate both technical and non-technical information effectively, enabling them to exchange essential information accurately.

1.4 **Apply the power/interest grid to categorise stakeholders.**

Indicative content

a. Power/interest grid.

Guidance

The power/interest grid is a stakeholder analysis tool, used to map stakeholders in terms of their level of interest and the amount of power or influence they have to support or block a project.

Stakeholders should be mapped on the grid using one of nine possible combinations that combine a level of interest (low, some, high) with their level of power (low, some, high).

1.5 Choose an appropriate stakeholder management strategy.

Indicative content

a. Watch, keep satisfied, constant active management, keep on side, keep informed, ignore.
b. RACI (Responsible, Accountable, Consult, Inform).

Guidance

Based on the power/interest grid, stakeholders require various different management strategies and this too is likely to change as the project progresses. RACI charts may also be used to understand how the level of involvement from a stakeholder differs at each project stage by categorising a stakeholder as responsible, accountable, consulted or informed during each activity.

1.6 Explain the importance and methods of gaining stakeholder buy-in.

Indicative content

a. Stakeholder buy-in.

Guidance

Stakeholder buy-in can provide valuable ideas and feedback that inform decisions and increase the likelihood of a successful outcome. Stakeholder insight can be leveraged when creating the product specification or making decisions on the features for a minimally viable product. Ideas may be gained through interviews, workshops or card sorting activities during which participants organise the proposed content for the digital product into categories that make sense to them.

To gain buy-in, it is imperative that stakeholders are in support of the objectives of the project and understand the metrics that will determine success. A well-written product requirement document (PRD) that contains the product specifications can act as an effective communication tool not only when seeking stakeholder support but also throughout the development cycle.

Indicative content

a. Define the problem.
b. Discover solutions.
c. Evaluate alternatives.
d. Implement a solution.

Guidance

Problem solving is the process of defining the issue, ascertaining the cause, and discovering various avenues to find one or more alternative solutions.

In a broader sense, problem solving in product management is also about the problems the product will solve for the customers and the value being proposed.

Product managers need to adopt a solution-oriented attitude, ensure that they are aware of the subtleties of the issue and consider underlying assumptions and constraints. They need to break the problem down into its constituent parts and find ideas that can solve sub-problems - these can be brought together later to find the overall solution.

Candidates should consider the different styles of problem solving techniques, as well as the similarities and differences in them (e.g. Miro Ishikawa Fishbone, brainstorming, mind mapping, hypothesis testing).

PROBLEM SOLVING

PRODUCT MANAGERS NEED TO IDENTIFY CUSTOMERS'
PROBLEMS AND CREATE SOLUTIONS TO ADDRESS THEM.

BCS COURSEWARE

SYLLABUS

2.1   **Analyse the business environment using an appropriate framework.**

Indicative content

a. External business environment:
   i.   Porter's Five Forces.
   ii. PESTLE (Political, Economic, Socio-cultural, Technological, Legal, Environmental).
b. Internal business environment:
   i.   VMOST (Vision, Mission, Objectives, Strategy and Tactics).
   ii. Resource audit (Physical, Financial, Human, Know-how and Reputation).

Guidance

Identifying and analysing competitors and competitive products enables organisations to establish where in the market they are positioned and helps them develop strategies to outperform competitors.

Candidates need to be able to select an appropriate technique to explain why and how the external business environment is important, identify its benefits and justify when and why to use it.

2.2   **Explain the importance of alignment between commercial considerations and overarching business strategy.**

Indicative content

a. Impact of commercial considerations on business strategy.

Guidance

When commercial considerations align with business strategy, the entire organisation is supported in achieving its intended outcomes and fulfilling its purpose. Product managers need to understand the overall business strategy to enable them to make the right decisions, for example, in terms of identifying products to take to market (e.g. products that align with organisational values and fill a gap in the market) and the revenue to be achieved.

2.3 **Explain how the organisation's IT environment supports product development, delivery and marketing activities.**

Indicative content

a. IT-business alignment.

Guidance

IT infrastructures must operate in tandem with the organisation, deliver real business value and support it in attaining its goals. IT infrastructures should align with the vision, mission and capabilities of the business and should be reviewed regularly to ensure that the gap between the IT environment and the requirements for product development, delivery and marketing are minimised and eliminated where possible.

Product managers need to consider the capabilities of the technical environment (i.e. what achievements it enables) but also its constraints and the impact inadequate IT systems may have on being competitive.

Understanding how IT systems operate, what data analytics they provide, and working within their capabilities support PMs in maximising the value their products are able to generate.

2.4 **Apply legal requirements, legislation and organisational guidelines relevant to digital product development.**

Indicative content

a. Data protection.
b. Safety regulations.
c. Accessibility.
d. Inclusion.
e. Ethics.

Guidance

Candidates must consider not only the economic but also the regulatory environment in which the product will exist and comply with relevant legal requirements, for instance the General Data Protection Regulations 2018, which requires organisations to protect the personal information of data subjects. Data must be processed in a manner that is lawful, fair and transparent - including data collected, processed and stored. These principles should be built into all stages of the product development lifecycle.

Non-compliance with regulatory requirements may result in investigations, unlawful act notices and court action, adversely affecting the organisation's reputation.

2.5 **Prepare an analysis using Porter's value chain.**

Indicative content

a. Primary activities (inbound logistics, operations, outbound logistics, marketing and sales, service).
b. Supporting activities (firm infrastructure, human resource management, technology development, procurement).

Guidance

A value chain is used to describe all the business activities it takes to create a product from start to finish (e.g. design, production, distribution, and so on). A value chain analysis gives organisations a visual model of these activities, allowing them to determine where they can reduce costs.

2.6 **Apply customer research methodologies taking into account the diversity of the target market.**

Indicative content

a. Qualitative (e.g. focus groups, interviews, usability testing).
b. Quantitative (e.g. email surveys, sales, completed user journeys).

Guidance

Product managers identify gaps in the market that present profitable business opportunities, i.e. identify products that customers will want to buy. There are various ways to conduct this gap analysis, including customer feedback elicitation and monitoring trends in the market.

Instead of creating entirely new products, organisations may also improve their existing offering to seize opportunities.

Diverse customer research that reflects the demographics and characteristics the organisation has the potential to serve (e.g. in terms of ability, age, race, gender, etc), helps determine the viability of the product, particularly when coupled with market analysis and supports effective communication with the target audience. Diversity in research enables understanding of how different people may use the product in different ways and informs product design that is inclusive to as large a segment of the market as possible.

2.7 **Analyse the market to determine its size.**

Indicative content

a. Market sizing methods:
    i. Top-down approach.
    ii. Bottom-up approach.
b. Horizon scanning.

Guidance

Sizing the market helps organisations make informed strategic decisions; the data gained from this analysis can provide information on the potential number of sales, the scale of resources required before product launch and helps forecast revenue.

Through top-down market sizing, the largest possible market size is determined which is then phased down to the expected share of the addressable market, meanwhile the bottom-up approach identifies reachable customer numbers or current sales and then estimates growth.

Organisations can build resilience and prepare for risks that future changes in the market may pose by spotting signs of disruptive change and trends early. Horizon scanning and environmental monitoring involves data gathering and meticulous analysis that allow consideration of intended and unintended future outcomes.

2.8 Prepare and monitor budgets to manage costs and maximise revenue.

Indicative content

a. Financial models.
    i. Costs.
    ii. Usage.
    iii. Revenue and forecasts.
b. Pricing models.
    i. Free or cheap products.
    ii. Pricing with external reference.
c. Carbon cost.

Guidance

Product managers should be familiar with essential financial concepts such as preparing and monitoring budgets, the difference between revenue and profit, how decisions on product features and specifications translate into cost and generate revenue, and how the product contributes to the overall financial goals of the organisation.

It should be considered how revenue is affected by lower or higher product uptake than expected, delays to product release and aggressive competitor reaction.

Candidates should be aware of the financial models of revenue generation (e.g. subscription model, one off purchase, free, advertising, etc.)

2.9 Apply data analysis to evaluate research findings.

Indicative content

a. Use of analytics tools.
b. Data presentation methods.

Guidance

Data helps develop products and product managers use it to inform decisions, improve user experience, prioritise tasks, influence processes and communicate progress. When deciding what product or features to develop, managers can use quantitative and qualitative data as a basis for their reasoning.

Being able to collect, analyse and present data are essential skills that allow transforming data into action.

Candidates should be able to use analytics tools suitable to the information collected (e.g. data on web traffic, sales, downloads, etc.) and visually present data to an audience.

SYLLABUS

3.1 Create a product roadmap.

Indicative content

a. Product roadmap.

Guidance

A product roadmap is a high-level outline of the current state of the product, the organisation's future plans for it and the level of effort needed to achieve objectives. Typically, roadmaps are more detailed in the short term (3 to 12 months for software projects, depending on the size of the project), and less definitive in the long term.

Roadmaps may relate to a single product or organisations may collect a number of product plans to form a company roadmap.

Candidates should demonstrate understanding of how product roadmaps may be affected by company roadmaps.

3.2 Explain the purpose of a vision for the product and the organisation.

Indicative content

a. Defines target state.
b. Purpose and direction.

Guidance

A vision is a statement that defines the product's overarching purpose and the ultimate goals it aims to achieve. The vision provides clarity of purpose and reason for existing, and should be used to inform project objectives and strategy.

Ideas for creating new products or changing existing ones should be validated to ensure that they align with the vision for the product and the organisation as a whole. It should be established how the product drives the business model and what competition it faces.

3.3 **Create and apply personas to inform decision making.**

Indicative content

a.   Personas.

Guidance

Personas are profile of fictional characters that describe various types of users. One of the key stages of product development is identifying who the potential users are and form a comprehensive picture of their expectations, motivations and aspirations, what issues the product will solve for them, the messages they find compelling, etc.

Personas do not have to be accurate but rather, detailed. The more detailed it profile is, the more consideration can be given to the various aspects that may influence an individual's decisions about the product.

Personas may be created based on past user profiles or from interviews with real people.

To help follow the established product strategy by focusing on the needs of the target audience, candidates should be able to create and use personas.

YOUR ROLE
DIGITAL PRODUCT MANAGERS ARE ESSENTIAL FOR TURNING DIGITAL PRODUCT CONCEPTS INTO A REALITY.
BCS COURSEWARE

3.4 Analyse the stages of the product delivery lifecycle.

Indicative content

a. Concept.
b. Definition.
c. Development.
d. Launch.
e. Monitoring.

Guidance

As products undergo the full delivery lifecycle, product managers are responsible for guiding the process, taking the lead on some stages and supporting on others.

Once an opportunity in the market is identified and the climate and competitors are analysed, the value proposition and budget plans are created, and managers define the high-level objectives, product specifications, target dates for each stage, as well as the approach to developing and launching the product. For the latter, a customised launch checklist may be created (containing the action items, potential risks and key decisions) and a launch owner is identified early on to manage the go-to-market plan. Pre-launch checklists may also be divided into technical, commercial and operational functional areas.

Through metrics and analytics, monitoring the product helps to improve the performance and inform strategy.

Candidates are expected to have a detailed understanding of what is involved in each phase of the lifecycle and the role of all stakeholders.

3.5 Describe the concept of pivoting.

Indicative content

a. Product pivot.
b. Customer pivot.

Guidance

During any stage of product development, it may be necessary to make the decision to change some elements of the product or its entire purpose to better suit the market. The need for this correction of course arises from the product not performing as expected – this may be due to one product feature getting far more traction than others, incorrect product positioning (e.g. the product is not popular with the intended user segment but is popular with another), or new, more advantageous technologies becoming available (e.g. in terms of cost or performance).

Product managers need to be able to identify whether pivoting is needed and what the right time for this is, so no opportunity is lost but also no resources and time are wasted.

3.6   Apply risk management techniques throughout the product delivery lifecycle.

Indicative content

a.   Identify.
b.   Analyse.
c.   Treat.
d.   Monitor.

Guidance

In terms of product management, risk is described as the possibility of the product development and/or management process suffering loss. This may be due to numerous reasons, for example incorrectly prioritising the product roadmap or inadequate market research (strategic risks), as well as insufficient testing or not managing scope creep (executional risks).

Managing risks for digital products differs from managing risks for physical products in that digital products are pliable and new versions can be rolled out with minimal disruption. This relies on the continuous analysis of feedback and performance.

Candidates are expected to be able to assess the impact of potential risks and mitigate against them.

3.7   Apply appropriate quality assurance and quality control methods.

Indicative content

a.   PDCA cycle (Plan, Do, Check, Act).
b.   Continuous checks, gateway reviews.

Guidance

Quality assurance (QA) strategies are proactive processes that aim to improve the development process, making it effective. For continuous improvement of quality assurance processes, the PDCA cycle can be followed repeatedly – this will enable the development, testing and monitoring of processes that will support product delivery.

Reactive quality control (QC) checks are product, rather than process focused. Continual checks and reviews enable the early identification of issues and the quick embedding of incremental changes. They also help maintain flexibility in adapting to changing needs. Quality checks must respond to the product's current position within the product lifecycle; the closer the product is to the launch stage, the more comprehensive the checks need to be. For example, a minimally viable product requires less rigorous testing, as during this stage the primary focus is on gaining customer validation and determining product features.

At the end of each development stage, a gateway review informs the decision whether the product can viably progress on to the next stage or further development is required.

3.8 **Choose appropriate testing methods to evaluate compliance with product requirements.**

Indicative content

a. Minimum viable product (MVP) testing.
b. Split testing (A/B, multivariable).
c. Regression testing.

Guidance

Whilst QA and QC focus on the processes and the product as a whole respectively, testing methods are more granular and focus on detecting issues with specific aspects of the product (e.g. errors in the coding of a software product).

Meticulous testing before launch is necessary to ensure the product hits its desired success criteria. Internal alpha testing identifies significant issues and makes sure the product works as intended, and beta testing by a small pool of external users allows for broader reliability and security tests before wider testing or release. The amount of testing depends on the development approach - the fast, iterative cycles of the Lean Methodology will demand less testing.

By allowing comparison between the control version and the variation, split testing helps determine desired variables that have the most impact and drive metrics. A/B testing is suitable for identifying smaller changes, whilst multivariable testing is complex but it eliminates the need for multiple A/B tests.

Candidates should be able to apply the appropriate testing method to a given situation and differentiate between quantitative and qualitative methods.

3.9 **Analyse metrics to monitor product performance.**

Indicative content

a. Key performance indicators (KPIs).
b. Data:
      i.   Quantitative.
      ii. Qualitative.

Guidance

Product metrics are used to measure the success of a product. Metrics provide an insight into product performance and help identify opportunities to achieve a desired outcome, thus they can inform strategic objectives. Accurately defining what the key metrics relevant to a given product and context are, is paramount to being able to track success and take timely action to address any issues.

When deciding what metrics to measure, it must be considered whether they provide data upon which decisions can be made (actionable metrics) or data that is informative but doesn't necessarily measure performance (vanity metrics).

In digital products, metrics are generally measured by adding code to track how customers use the product. The HEART (happiness, engagement, adoption, retention, task success) framework can assist in improving user experience of software and making better decisions about the future of the product. Other common ways of measuring metrics are tracking the Net Promoter Score (NPS), the number of users and downloads, customer feedback, or in marketing, measuring conversion rates and the time spent on a site.

Candidates are expected to be able to select the appropriate KPIs to measure (e.g. customer acquisition cost, return on advertising spend), as well as determine how to measure them.

SYLLABUS

4. PRODUCT DEVELOPMENT TECHNIQUES 25% K3

4.1 Apply prioritisation techniques.

Indicative content

a. Market driven.
b. Management driven.
c. Incident driven.

Guidance

For a successful product launch, appropriate prioritisation throughout the development lifecycle is key. When making decisions, product managers must consider a wide range of aspects at each stage. For example:

• Stakeholder input - Should the opinion of one stakeholder take priority over another's?

• Market trends - Should certain features take priority in order to keep up with the competition?

• Potential issues – Are there any bugs present that require urgent attention?

PMs may employ various frameworks to prioritise requirements, such as RICE (Reach, Impact, Confidence, Effort), MoSCoW (Must-have, Should-have, Could-have, Won't-have) and the Kano method (for prioritising features).

4.2   **Apply product development techniques.**

Indicative content

a. Agile methodologies/practices:
    i.   Scrum.
    ii. Kanban.
    iii. Agile at scale: SAFE.
b. Lean.
c. User centred design (UCD)
d. Waterfall.

Guidance

Product development techniques provide a structured way to take a product through its lifecycle – from conception to launch. The granular phases of an appropriately chosen method provide time-bound targets, information on the resources and documentation required, an estimation of costs, and also help measure return on investment. Each method offers a different pace and level of flexibility.

PMs operate according to the Agile Manifesto which includes four core values of Agile software development. Candidates are expected to be able to apply these in their work.

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4.3   **Create business cases, user stories and use cases.**

Indicative content

a. Business case.
b. User story.
c. Use case.

Guidance

User stories represent bite-size deliverables that are easy to understand and keep the team focused on who they are developing the product for (i.e. the customer). They have three critical aspects, referred to as the 3Cs (card, conversation, confirmation/acceptance criteria). User stories are not as detailed as use cases which capture the user's perspective whilst describing the process they go through to achieve the intended goal.

A business case is created only after investigation into potential solutions has taken place, but before any commitment is made to a solution. The purpose of a business case is to present multiple courses of action to decision maker and make recommendations.

Product managers should be able to identify the elements of and create use cases, user stories and business cases, as well as explain the rationale for these.

4.4   Explain the concept of minimum viable product.

Indicative content

a. Something to test.
b. Something to sell.
c. Aids decision making.

Guidance

A minimum viable product (MVP) enables the validation and development of a product that has the minimum amount of core features required to address a given opportunity in the market. MVPs help with prioritising product specifications as they require identification of the most crucial part(s) of the product that will deliver the most value.

MVPs help teams build products that are not overly complex due to the addition of fancy, but not necessarily required features, potentially making it more user-friendly. Customer feedback from iterative releases of an MVP also informs the addition of further product features.

Candidates should be able to demonstrate understanding of the benefits of an MVP and the process of creating one.

4.5   Describe various prototyping approaches.

Indicative content

a. Rapid (throwaway) prototyping.
b. Evolutionary prototyping.
c. Incremental prototyping.
d. Extreme prototyping.

Guidance

Prototypes help the team better understand the product specifications by providing a visual, and ideally interactive, representation. Using prototypes, developers can give more precise estimates for how parts of the product will be built.

Prototypes can be used for usability testing and gaining customer feedback on how well the product meets their needs – information that can be used to decide whether/what product changes are needed.

4.6   **Explain what sustainable product development is.**

Indicative content

a. Environmental impacts.
b. Social impacts.
c. Economic impacts.

Guidance

Although the impact of digital products is not as apparent as that of physical products, the infrastructure that keeps digital products going requires physical equipment (cables, hardware) and electricity (fossil fuels). The use of renewable energy sources, reducing the data that needs to be transmitted by streamlining content and user experience, and considering what data is collected and how long it is stored for can help optimise energy efficiency.

Candidates are expected to understand the positive impact of sustainable product development and the action they can take to support it.

4.7   **Describe the key features of different coding languages and use terminology associated with coding.**

Indicative content

a. Web (HTML, CSS, Javascript).
b. Android (Java).
c. IOS (Swift, Objective C, X-code).
d. Windows (SDK, including C-Sharp, Visual Studio).
e. Mac (Swift, X-code).

Guidance

Product managers, who often work as generalists among a team of specialists, have the potential to bridge the gap between the technical development and the business aspect within the organisation. They translate the product requirements of the business team, so developers have a precise understanding of specifications and timelines and vice versa, they appreciate what it takes to create the product in the real world. For this to happen, speaking the language of developers is essential.

Digital product managers, who understand basic coding and how code functions, can effectively work with engineers, take part in scoping sessions, ensure sufficient test coverage and assist with prioritisation.

Candidates should have a basic understanding of coding, when and how it is used, be able to identify the advantages and drawbacks of various scripting languages and be aware of current tech trends.

SYLLABUS

5. METHODS AND TECHNIQUES OF MARKETING 15% K3

5.1 Analyse the different types of user acquisition models.

Indicative content

a. Advertising.
b. Licensing.
c. Affiliate marketing.
d. E-commerce.
e. (Big) data.
f. Freemium.
g. Subscription.
h. Sponsorship.
i. Build to sell.

Guidance

Converting people into customers/paying users happens through the process of user acquisition. The right user acquisition strategy can systematically and sustainably bring new customers/users and increase revenue for the organisation. The aim of acquisition is not simply to create awareness of the brand or product and promote recognition but to drive users to take action. Implementing the model appropriate to the organisation and the product, can reduce marketing costs and the cost of gaining new and retaining existing customers.

Candidates should be able to explain the characteristics of each model and select the model pertinent to a given scenario.

5.2 Describe concepts used to promote a product into the market.

Indicative content

a. 4Ps framework (Product, Price, Place/ Distribution, Promotion).
b. Business model canvas.

Guidance

For a successful product launch, thorough pre-launch planning and a sound marketing approach are essential. Key launch goals and assets required for the launch need to be identified. One framework that supports the creation of a successful launch strategy is the 4Ps framework; this enables the analysis of the product, identification of its appeal and similarities to comparable products, consideration of the appropriate price, determination of where the product should be sold and the other products it should be associated with.

The business model canvas is a valuable framework not only for encapsulating the overall business strategy but also for examining all aspect of a product and supporting the creation of a marketing strategy.

5.3 **Describe digital marketing techniques.**

Indicative content

a. Social media marketing.
b. Search engine optimization (SEO).
c. Search engine marketing (SEM).
d. Paid content (Public Relations).
e. Email campaigns.

Guidance

Identifying and applying effective digital marketing techniques can help ensure that the right audience learns about and finds the product whilst preventing resources being wasted on unsuitable approaches. Each technique has aspects that, if leveraged well, can transform marketing strategy; for example, a well-optimised product webpage can improve the chances of the site ranking highly on search engines and can earn citations, driving traffic from multiple directions.

5.4 **Describe the advantages and disadvantages of various advertising methods.**

Indicative content

a. Display ads.
b. Search ads.
c. Promoted content.
d. Classifieds.
e. Featured listings.
f. Email ads.

Guidance

The ubiquity of the internet provides innumerable advertising opportunities that can reach an abundance of potential customers. Many platforms share their user demographics with advertisers; this allows for the careful selection of the method that may target the highest number of people most likely to purchase the product.

When selecting an advertising method, product managers should take into account factors such as obtrusiveness of the ad, the ease with which costs can be tracked (this is very simple with 'pay per click'), the ability to track effectiveness, and the ability to modify the campaign in response to its performance.

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.

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.

TYPE

40 MULTIPLE CHOICE QUESTIONS

DURATION

90 MINUTES

SUPERVISED

YES

THIS EXAMINATION WILL BE SUPERVISED

OPEN BOOK

NO

(NO MATERIALS CAN BE TAKEN INTO THE EXAMINATION ROOM)

PASSMARK

(65%)

26/40

DELIVERY

DIGITAL FORMAT

QUESTION WEIGHTING

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

- Guidance on the proportion of content allocated to each topic area of an accredited course.

- Guidance on the proportion of questions in the exam.

2. 20%

3. 25%

1. 15%

5. 15%

4. 25%
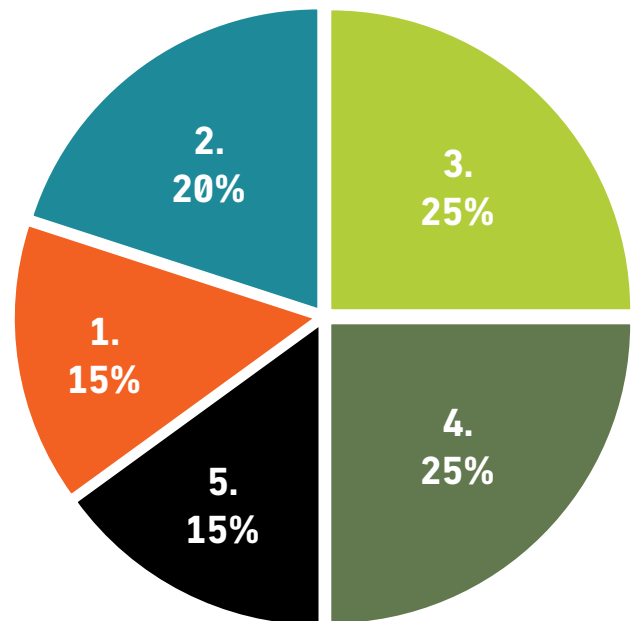
Syllabus Area

1	Effective stakeholder management and communication
2	Analyse the internal and external environment and undertake market analysis.
3	The product delivery lifecycle
4	Product development techniques
5	Methods and techniques of marketing

Question Type

Multiple Choice Questions
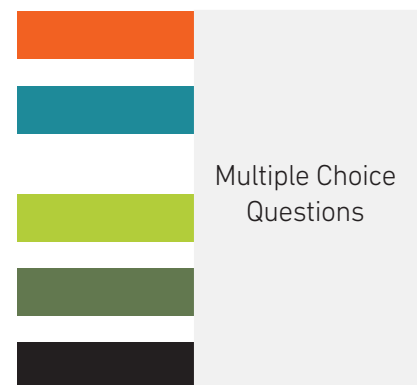
RECOMMENDED READING

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

TITLE: Cracking the PM Career: The Skills, Frameworks, and Practices to Become a Great Product Manager (Cracking the Interview & Career)
AUTHOR: Jackie Bavaro, Gayle Laakmann McDowell
PUBLISHER: CareerCup
PUBLICATION DATE: 22 January 2021
ISBN: 0984782893

TITLE: Radical Product Thinking: The New Mindset for Innovating Smarter
AUTHOR: R. Dutt
PUBLISHER: Berrett-Koehler Publishers
PUBLICATION DATE: 12 October 2021
ISBN: 1523093315

TITLE: Digital Product Management
AUTHOR: Kevin J. Brennan, Sallie Godwin, Filip Hendrickx
PUBLISHER: Berrett-Koehler Publishers
PUBLICATION DATE: September 2022
ISBN: 9781780175324

DIGITAL PRODUCT MANAGEMENT

Kevin J. Brennan, Sallie Godwin and Filip Hendrickx

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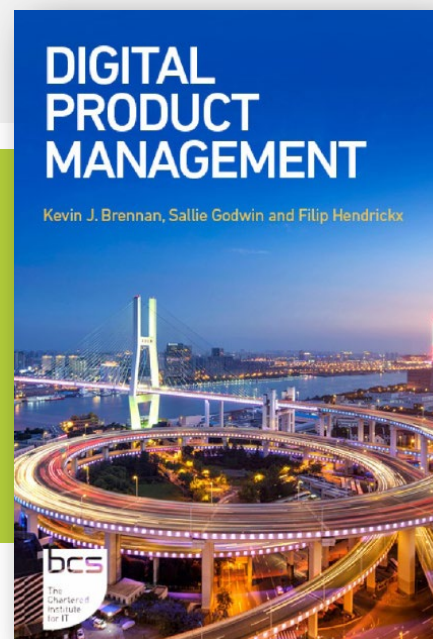
USING BCS BOOKS

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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	Document created.

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