PROFESSIONAL QUALIFICATION SCHEME

INTERMEDIATE QUALIFICATION

SERVICE CAPABILITY

PLANNING, PROTECTION AND OPTIMIZATION CERTIFICATE

SYLLABUS

Contents

THE ITIL INTERMEDIATE QUALIFICATION: PLANNING, PROTECTION AND OPTIMIZATION CERTIFICATE

The ITIL Intermediate Qualification: Planning, Protection and Optimization (PPO) Certificate is a free-standing qualification, but is also part of the ITIL Intermediate Capability stream, and one of the modules that leads to the ITIL Expert Certificate in IT Service Management. The purpose of this training module and the associated exam and certificate is, respectively, to impart, test, and validate the knowledge on industry practices in service management as documented in the ITIL Service Lifecycle core publications.

The ITIL Certificate in Planning, Protection and Optimization is intended to enable the holders of the certificate to apply PPO practices during the service management lifecycle and specifically in the following key ITIL process and role areas:

- Capacity management
- Availability management
- IT service continuity management (ITSCM)
- Information security management
- Demand management

Target Candidate

The target group of the ITIL Intermediate Qualification: Planning, Protection and Optimization Certificate includes, but is not restricted to:

- IT professionals
- Business managers
- Business process owners
- Individuals who require a deep understanding of how the ITIL Certificate in the Planning, Protection and Optimization processes may be used to enhance the quality of IT service support within an organization
- IT professionals who are working within an organisation that has adopted and adapted ITIL, and who need to be informed about, and thereafter contribute to, an ongoing service improvement programme
- Operational staff involved in capacity management, availability management, ITSCM, information security management, and demand management, and who wish to enhance their role-based capabilities
- Individuals who have attained the ITIL Foundation Certificate in IT Service Management and wish to advance to higher level ITIL certifications
- Individuals seeking the ITIL Expert Certificate in IT Service Management for which this qualification can be one of the prerequisite modules
- Individuals seeking progress toward the ITIL Master Certificate in IT Service Management for which the ITIL Expert is a prerequisite.

Prerequisite Entry Criteria

Candidates wishing to be trained and examined for this qualification must already hold the ITIL Foundation Certificate in IT Service Management which must be presented as documentary evidence to gain admission

Candidates who hold the following ITIL qualifications are also eligible, and similar evidence will be required:

- Earlier ITIL (V2) Foundation plus Foundation Bridge
- ITIL Expert Certificate in IT Service Management (achieved via Service Manager or Practitioner bridging routes).

It is recommended that candidates:

- Can demonstrate familiarity with IT terminology and understand the context of planning, protection and optimization management in their business environment.
- Have exposure to working in a service management capacity within a service provider environment, and have responsibility for at least one of the following management processes:
    - Capacity management
    - Availability management
    - IT service continuity management
    - Information security management
    - Demand management

Before attending training for the certification it is also strongly recommended that candidates read the ITIL Service Lifecycle core publications and, in particular, the *ITIL Service Design* publication.

Eligibility for Examination

To be eligible for the examination leading to the ITIL Planning, Protection and Optimization Certificate, the candidate must fulfil the following requirements:

- Have undertaken at least 30 contact hours (hours of instruction, excluding breaks, with an Accredited Training Organisation (ATO) or an accredited e-learning solution) for this syllabus, as part of a formal, approved training course/scheme
- 2 to 4 years' professional experience working in IT service management is highly desirable
- Hold the ITIL Foundation Certificate in IT Service Management (or other appropriate earlier ITIL and bridge qualifications– see *Prerequisite Entry Criteria* on p5)
- It is also recommended that candidates should complete a minimum of 12 hours of personal study, reviewing the syllabus and the pertinent areas within the *ITIL Service Design* core guide, specifically *Chapter 2: Service management as a practice*.

Syllabus at a Glance

Learning Unit PPO01: Introduction to planning, protection and optimization

Bloom's Level 2 Objectives – Full understanding of PPO terms and core concepts.
- The value to the business of PPO activities
- The lifecycle within the PPO context
- The purpose and objective of service design as it relates to PPO
- The basic service design principles

Learning Unit PPO02: Capacity management

Bloom's Level 4 Objectives – The knowledge, interpretation and analysis of capacity management principles, techniques and relationships and their correct application to enable effective services planning, protection and optimization.
- The end-to-end process flow for capacity management, including its design strategy, components, activities, roles and operation, organizational structure and its interfaces with other processes
- A measurement model and the metrics that would be used to support capacity management within PPO practices
- The benefits and business value that can be gained from capacity management

Learning Unit PPO03: Availability management

Bloom's Level 4 Objectives – The knowledge, interpretation and analysis of availability management principles, techniques and relationships and their correct application to enable effective services planning, protection and optimization.
- The end-to-end process flow for availability management, including its design strategy, components, activities, roles and operation, organizational structure and its interfaces with other processes
- The benefits and business value that can be gained from availability management
- A measurement model and the metrics that would be used to support availability management within PPO practices

Learning Unit PPO04: IT service continuity management (ITSCM)

Bloom's Level 4 Objectives – The knowledge, interpretation and analysis of ITSC management principles, techniques and relationships and their correct application to enable effective services planning, protection and optimization.
- The end-to-end process flow for ITSCM, including its design strategy, components, activities, roles and operation, organizational structure and its interfaces with other processes
- The four stages of ITSCM (i.e. initiation, requirements and strategy, implementation and on-going operation) and how each can be used to support PPO
- A measurement model and the metrics used to support ITSCM within PPO practices
- The benefits and business value that can be gained from ITSCM

Learning Unit PPO05: Information security management

Bloom's Level 4 Objectives – The knowledge, interpretation and analysis of information security management principles, techniques and relationships and their correct application to enable effective services planning, protection and optimization.
- The end-to-end process flow for security management , including its design strategy, components, activities, roles and operation, its organizational structure and its interfaces with other processes
- A measurement model and the metrics that would be used to support security management within PPO practices
- The benefits and business value that can be gained from security management

Learning Unit PPO06: Demand management

Bloom's Level 4 Objectives – The knowledge, interpretation and analysis of demand management principles, techniques and relationships and their correct application to enable effective services planning, protection and optimization.

- The end-to-end process flow for demand management, including its design strategy, components, activities, roles and operation, organizational structure and its interfaces with other processes
- Activity-based demand management as it relates to business and user activity patterns and how these contribute to core and service packages
- The benefits and business value that can be gained from demand management in support of PPO

Learning Unit PPO07: Planning, protection and optimization roles and responsibilities

Bloom's Level 4 Objectives – The knowledge, interpretation and analysis of organizational roles, principles, techniques and relationships and their correct application to enable effective services planning, protection and optimization.

- The roles and responsibilities related to capacity, availability, ITSCM and information security management, how they fit and are used within the service design organization to support PPO.

Learning Unit PPO08: Technology and implementation considerations

Bloom's Level 4 Objectives – The knowledge, interpretation and analysis of technology and implementation principles, techniques and relationships and their correct application to enable effective services planning, protection and optimization.

- Service management tools, where and how they can be used within PPO for process implementation
- The types of tools that support service design as related to PPO.
- What best practices should be used in order to alleviate challenges and risks when implementing service management technologies and designing technology architectures.

Qualification Learning Objectives

Candidates can expect to gain competencies in the following areas upon successful completion of the education and examination components related to this certification:

- Service design in PPO and lifecycle context
- Processes across the service lifecycle pertaining to the practice elements within planning, protection and optimization
- Capacity management as a capability to realize successful service design
- Availability management as a capability to realize successful service design
- IT service continuity management as a capability to support overall business continuity management
- Information security management as part of the overall corporate governance framework
- Planning, protection and optimization roles and responsibilities
- Technology and implementation considerations
- Organizational roles relevant to PPO

And specifically in the following key ITIL process and role areas:-

- Capacity management
- Availability management
- IT service continuity management
- Information security management
- Demand management
- Challenges, critical success factors and risks for planning, protection and optimization

In addition, the training for this qualification should include examination preparation, including an opportunity for a mock examination.

Level of Difficulty

All ITIL service management qualifications use the Bloom's taxonomy in both the construction of the learning units and in the examination which is based on this syllabus.

A learning taxonomy is a scale of the degree of difficulty in the learning process. These levels apply to the cognitive, affective and psychomotor domains of learning but, in the ITIL Qualification Scheme, we deal only with the cognitive sphere.

Bloom defines six levels of learning in the COGNITIVE domain which are both sequential and cumulative. They move from the simple to the complex. This implies that in order to achieve the sixth level of learning, for example, the instructor must ensure that the previous five levels have been mastered.

Level 1 - The KNOWING level: The candidate is able to bring to mind or remember the appropriate material. The examination questions associated with this level tax the candidate's memory and include such tasks as defining, recalling, listing, recognizing, describing and naming.

Level 2 - The COMPREHENDING stage: The candidate is able to understand or grasp the meaning of what is being communicated and make use of the idea without relating it to other ideas or materials and without seeing the fullest possible meaning or translation of the idea. Examination questions at this level would include scenarios giving examples of, illustrating, inferring, summarizing and interpreting. These actions involve the knowing which has taken place at the first level.

Level 3 - The APPLYING level: The candidate should be able to use ideas, principles and theories in new, particular and concrete situations. Examination questions at this level involve both knowing and comprehension, and might include choosing appropriate procedures, applying principles, using an approach or identifying the selection of options.

Level 4 - The ANALYSING level: The candidate is able to break down a communication (rendered in any form) into constituent parts in order to make the organization and significance of the whole clear. Breaking down, discriminating, diagramming, detecting, differentiating and illustrating are important tasks at this level and can be seen to include the previous levels of knowing, comprehending and applying. Here the significance of the constituent parts of an entity are examined in order to understand the whole more fully.

Level 5 - The SYNTHESIS level: At this level the candidate is able to put back together again the various parts or elements of a concept into a unified organization or whole. This putting together again and making sense of small parts is a crucial factor in intelligence and learning. Examination questions at this level would include scenarios involving creating, writing, designing, combining, composing, organizing, revising and planning. In order for this level of learning to occur, it must include the first four levels – knowing, comprehending, analysing and applying. This level of learning is probably the most intense and exciting for the candidate.

Level 6 - The EVALUATING phase: In this phase the candidate is able to arrive at an overview and to judge the value and relative merit of ideas or procedures by using appropriate criteria. At this level of learning the candidate will be able to compare, judge, appraise, justify, criticize and contrast theories, procedures, methods and concepts. This level involves mastery of the five previous levels of knowing, comprehending, applying, analysing and synthesizing.

For the purposes of the ITIL Qualifications Scheme, the Bloom's level will appear in each syllabus module to identify the highest level of cognitive difficulty that the course content should deliver in order to meet the learning outcome and ensure the competence required to meet the examination level of difficulty.

The following table illustrates the use of the taxonomy in ITIL professional qualifications.

Bloom's Levels and taxonomy	Used by ITIL certification	Intellectual activity in learning outcome and exam proficiency
1. Knowing 2. Comprehending	ITIL service management Foundation Level	The ability to recall, recite, name, and understand the meaning of ITIL terminology and basic practice fundamentals. *Vernacular examples used in Syllabus:* Understand; describe; identify
3. Applying 4. Analysing	ITIL service management Lifecycle Stream Capability Stream Managing Across the Lifecycle	The ability to use the practices and concepts in a situation or unprompted use of an abstraction. Can apply what is learned in the classroom in workplace situations. Can separate concepts into component parts to understand structure and can distinguish between facts and inferences. *Vernacular examples used in Syllabus:* Analyse; demonstrate; apply; distinguish; justify; produce; decide
5. Synthesis 6. Evaluating	ITIL service management Managing Across the Lifecycle – level 5 only ITIL Master	The ability to create patterns or structure from composite elements to achieve a new meaning or outcome. Can make judgements, weigh options of ideas and elements to justify and support an argument or case. *Vernacular examples used in Syllabus:* Evaluate; justify; summarize; plan; modify; manage; control

Intermediate stream qualifications will examine according to the Bloom's level assigned to each syllabus learning unit within each of the service lifecycle and service capability streams. This means that a candidate must be prepared to be tested up to and including that level for any question related to that learning unit or units.

The examination format of complex multiple choice will offer a scenario and questions with a corresponding series of possible answers. Each is constructed to test a candidate's competency up to and including the Bloom's level associated with the syllabus learning unit that the question is mapped to. Instructors should ensure that the module curriculum offers discussion, practical exercises and instruction that will ensure the candidate has the competence required to meet the exam level of difficulty.

The intermediate modules are expected to provide a practical level of proficiency to enable a candidate to utilize the knowledge learned in their work environment. The examinations test a level of proficiency that allows candidates to apply the knowledge learned in the course to correctly select the correct sequence of possible answers.

Planning, Protection and Optimization Syllabus

The ITIL Intermediate Qualification: Planning, Protection and Optimization Certificate is awarded to those who complete the following eight units of study described below and successfully pass the relevant multiple-choice examination.

Core guidance references with publication reference (SS – *ITIL Service Strategy*, SD – *ITIL Service Design*, ST – *ITIL Service Transition*, SO – *ITIL Service Operation*, CSI – *ITIL Continual Service Improvement*) and section numbers are included along with indicative contact study hours.

The contact hours are shown in each learning unit and are suggested to provide adequate time to cover the core guidance content. However, Accredited Training Organisations (ATOs) are encouraged to combine or re-order the learning units in any way that suits the flow of their courseware content delivery. All ATOs must ensure, however, that the minimum contact hours for eligibility for examination are met.

Section numbers are indicated as "chapter . section . subsection" (X.X.X). Unless otherwise indicated instructional coverage of the content of the entire section referenced is assumed.

The process-related learning units cover the day-to-day operation of the ITIL processes, but exclude aspects such as implementing the processes, which are covered in the Service Lifecycle modules.

The process-related units should be considered from the practitioner perspective and should impart the skills and knowledge needed to execute the activities on a daily basis.

For each process, all sub-sections in the book should be covered, with a particular focus placed on the end-to-end process flow. Candidates must understand the details of each process activity, along with associated methods and techniques.

The recommended number of contact hours for each process-related learning unit should be taken as a guide to the level of detail that can be achieved.

In addition, the training for this qualification should include examination preparation, including a mock examination opportunity.

Learning Unit	Curriculum Subjects Covered	Level of Difficulty

ITIL SC:
 	
PPO01
 	
Introduction
	This learning unit of this course provides an introduction to the core concepts and terminology used in the lifecycle stages that are related to PPO. These include select processes from service design and the service strategy.
	
	PPO is a collection of relevant practices from the core guidance that are related to service optimization and, security and the related planning in support of this. The relevant introduction to PPO includes the basic purpose and objective from service design and service strategy in support of PPO within a lifecycle context.
	
	To meet the learning outcomes and examination level of difficulty, the candidates must be able to understand and describe:
	
	• Purpose and objectives and value of service design
	  Core Guidance References - SD 1.1
	
	• The lifecycle in context
	  Core Guidance References - SD 1.2
	
	• Service design basics
	  Core Guidance References - SD 3.1
	
	• The interfaces of design coordination with other processes related to PPO
	  Core Guidance References – SD 4.1.6.4
		Up to Bloom's level 2
		
		Knowing and Comprehending
		
		The ability to recall, recite, name and understand the meaning of ITIL terminology and basic practice fundamentals.

	Contact hours recommended – 1.0	

Learning Unit	Curriculum Subjects Covered	Level of Difficulty
ITIL SC: **PPO02** **Capacity management**	This learning unit addresses how the process of capacity management contributes to PPO practices. The lifecycle phase emphasized in this unit is service design. It provides a complete overview of the objectives, scope and importance of capacity management as a process to generate business value. Capacity management policies, principles, concepts, activities, methods and techniques are explained in relationship to PPO practices. Efficient use of capacity management metrics are reviewed in this unit. To meet the learning outcomes and examination level of difficulty, the candidates must be able to understand, describe, identify, demonstrate, apply, distinguish, produce, decide or analyse: • The purpose and objectives of capacity management Core Guidance References - SD 4.5.1 • The scope of capacity management Core Guidance References - SD 4.5.2 • The importance of capacity management as a process to generate business value Core Guidance References - SD 4.5.3 • Capacity management policies, principles and basic concepts Core Guidance References - SD 4.5.4 • The main activities, methods and techniques that enable capacity management, and how they relate to planning, protection and optimization Core Guidance References - SD 4.5.5 • The triggers, inputs, outputs and interfaces of capacity management and its interfaces with other processes Core Guidance References - SD 4.5.6 • The capacity management information system and its role in information management Core Guidance References – SD 4.5.7 • How the critical success factors and key performance indicators can be used to demonstrate the efficiency and effectiveness of successful capacity management Core Guidance References - SD 4.5.8 • Challenges and risks of capacity management Core guidance references – SD 4.5.9	**Up to Bloom's level 4** Applying and Analysing The candidate should reach a level of competence that supports problem solving, putting theory into practice and interpreting principles and relationships related to capacity management.
	Contact hours recommended – 4.0	

Learning Unit	Curriculum Subjects Covered	Level of Difficulty
ITIL SC: **PPO03** **Availability management**	This learning unit addresses how the process of availability management contributes to PPO practices. It provides a complete overview of the objectives, scope and importance of availability management as a process to generate business value. Availability management policies, principles, concepts, activities, methods and techniques are explained in relationship to PPO practices. Efficient use of availability management metrics are reviewed in this unit. To meet the learning outcomes and examination level of difficulty, the candidates must be able to understand, describe, identify, demonstrate, apply, distinguish, produce, decide or analyse: • The purpose and objectives of the process Core Guidance References - SD 4.4.1 • The scope of the process Core Guidance References - SD 4.4.2 • The importance of availability management as a process to generate business value Core Guidance References - SD 4.4.3 • Availability management policies, principles and basic concepts Core Guidance References - SD 4.4.4 • The main activities, methods and techniques that enable availability management and how they relate to planning, protection and optimization Core Guidance References - SD 4.4.5 • The triggers, inputs, outputs and interfaces of availability management, and its interface with other processes Core Guidance References - SD 4.4.6 • How availability management relates to information management Core Guidance References – SD 4.4.7 • How the critical success factors and key performance indicators can be used to demonstrate the efficiency and effectiveness of successful availability management Core Guidance References - SD 4.4.8 • Challenges and risks of availability management Core guidance references – SD 4.4.9	**Up to Bloom's level 4** Applying and Analysing The candidate should reach a level of competence that supports problem solving, putting theory into practice and interpreting principles and relationships related to availability management.
	Contact hours recommended – 5.0	

Learning Unit	Curriculum Subjects Covered	Level of Difficulty
ITIL SC: **PPO04** **IT service continuity management**	This unit covers the IT service continuity management (ITSCM) process and how it contributes to PPO. It provides a complete overview of the objectives, scope and importance of IT service continuity management as a process to generate business value. IT service continuity management policies, principles, concepts, activities, methods and techniques are explained in relationship to PPO practices through each of the four stages of the ITSCM lifecycle. Efficient use of IT service continuity management metrics are reviewed in this unit. To meet the learning outcomes and examination level of difficulty, the candidates must be able to understand, describe, identify, demonstrate, apply, distinguish, produce, decide or analyse: • The purpose and objectives of the process Core Guidance References - SD 4.6.1 • The scope of the process Core Guidance References - SD 4.6.2 • The importance of ITSCM as a process to generate business value Core Guidance References - SD 4.6.3 • ITSCM policies, principles and basic concepts Core Guidance References - SD 4.6.4 • The main activities, methods and techniques that enable ITSCM, and how they relate to planning, protection and optimization, particularly stages 1-4 of the ITSCM lifecycle: ***Initiation*** Core Guidance References - SD 4.6.5.1 ***Requirements and strategy*** Core Guidance References - SD 4.6.5.2 ***Implementation*** Core Guidance References - SD 4.6.5.3 ***Ongoing operation*** Core Guidance References - SD 4.6.5.4 • Invocation of ITSCM Core Guidance References – SD – 4.6.5.5 • The triggers, inputs, outputs and interfaces of ITSCM, and its interface with other processes Core Guidance References - SD 4.6.6 • Information management for ITSCM Core guidance references – SD 4.6.7 • How the critical success factors and key performance indicators can be used and applied to demonstrate the efficiency and effectiveness of successful IT service continuity management Core Guidance References - SD 4.6.8 • Challenges and risks of ITSCM Core guidance references – SD 4.6.9	**Up to Bloom's level 4** Applying and Analysing The candidate should reach a level of competence that supports problem solving, putting theory into practice and interpreting principles and relationships related to ITSCM.

Learning Unit	Curriculum Subjects Covered	Level of Difficulty
	Contact hours recommended – 5.0	
ITIL SC: **PPO05** **Information security management**	This learning unit covers how information security management (ISM) process contributes to planning, protection and optimization practices. It provides a complete overview of the objectives, scope and importance of information security management as a process to generate business value. Information security management policies, principles, concepts, activities, methods and techniques are explained in relationship to PPO practices. Efficient use of information security management metrics are reviewed in this unit. To meet the learning outcomes and examination level of difficulty, the candidates must be able to understand, describe, identify, demonstrate, apply, distinguish, produce, decide or analyse: • The purpose and objectives of the process Core Guidance References - SD 4.7.1 • The scope of the process Core Guidance References - SD 4.7.2 • The importance of information security management as a process to generate business value Core Guidance References - SD 4.7.3 • Information security management policies, principles and basic concepts Core Guidance References - SD 4.7.4 • The main activities, methods and techniques that enable this process and how they relate to planning, protection and optimization Core Guidance References - SD 4.7.5 • The triggers, inputs, outputs and interfaces of information security management Core Guidance References - SD 4.7.6 • Information security management and the security management information system (SMIS) Core guidance references – SD 4.7.7 • How the critical success factors and key performance indicators can be used and applied to demonstrate the efficiency and effectiveness of successful information security management Core Guidance References - SD 4.7.8 • Challenges and risks of ISM Core Guidance references – SD 4.7.9	**Up to Bloom's level 4** Applying and Analysing The candidate should reach a level of competence that supports problem solving, putting theory into practice and interpreting principles and relationships related to ISM.
	Contact hours recommended – 4.0	

Learning Unit	Curriculum Subjects Covered	Level of Difficulty
ITIL SC: **PPO06** **Demand management**	This learning unit addresses how the demand management process contributes to PPO practices. The lifecycle phase emphasized in this unit is service strategy. It provides a complete overview of the objectives, scope and importance of demand management as a process, as well as of what activity-based demand management and business activity patterns are. Demand management policies, principles, concepts, activities, methods and techniques are explained in relationship to PPO practices. Managing demand for service is explored, as well as how it interfaces to service design. To meet the learning outcomes and examination level of difficulty, the candidates must be able to understand, describe, identify, demonstrate, apply, distinguish, produce, decide or analyse: • Purpose and objectives of demand management Core Guidance References - SS 4.4.1 • Scope of demand management Core Guidance References - SS 4.4.2 • Value to business Core Guidance References - SS 4.4.3 • Policies, principles and basic concepts Core guidance references – SS 4.4.4 • Process activities, methods and techniques of demand management Core Guidance References - SS 4.4.5 Note this includes SS 3.4.8 Defining service units and packages as it relates to Demand management, specifically SS 4.4.5.5 • Triggers, inputs, outputs and interfaces Core Guidance References - SS 4.4.6 • Information management and demand management Core guidance references – SS 4.4.7 • Critical success factors and key performance indicators Core guidance references – SS 4.4.8 • Challenges and risks of demand management Core guidance references – SS 4.4.9	**Up to Bloom's level 4** Applying and Analysing The candidate should reach a level of competence that supports problem solving, putting theory into practice and interpreting principles and relationships related to demand management.
	Contact hours recommended – 4.0	

Learning Unit	Curriculum Subjects Covered	Level of Difficulty

ITIL SC:
 	
PPO07
 	
Planning, protection and optimization roles and responsibilities
	This unit deals with how service roles and responsibilities contribute to planning, protection and optimization practices. In all the PPO focus areas, the key roles and responsibilities accountable for executing each process step are defined and discussed.
	
	To meet the learning outcomes and examination level of difficulty, the candidates must be able to understand, describe, identify, demonstrate, apply, distinguish, produce, decide or analyse:
	
	• The key roles/functions responsible for executing each process step as related to:
	
	    • Process manager
	    Core guidance references – SD 6.3.3
	
	    • Process practitioner
	    Core guidance references – SD 6.3.4
	
	    • Capacity management process manager
	    Core Guidance References - SD 6.3.9.2
	
	    • Availability management process manager
	    Core Guidance References - SD 6.3.8.2
	
	    • IT service continuity management process manager
	    Core Guidance References - SD 6.3.10.2
	
	    • Information security management process manager
	    Core Guidance References - SD 6.3.11.2
	
	    • Demand management roles
	    Core guidance references – SS 6.8.10
		Up to Bloom's level 4
		
		Applying and Analysing
		
		The candidate should reach a level of competence that supports problem solving, putting theory into practice and interpreting principles and relationships related to PPO challenges CSFs and risks.

	Contact hours recommended – 2.0	

Learning Unit	Curriculum Subjects Covered	Level of Difficulty
ITIL SC: **PPO08** **Technology and implementation considerations**	This unit deals with technology and implementation considerations and how they contribute to planning, protection and optimization practices. The lifecycle phases emphasized in this unit are service design, service operation and service transition. Service design is specifically used to identify good practices and evaluation criteria for technology and tooling related to process implementation. This unit shows how service design can also be used to understand the consideration for implementing technologies in supporting processes within PPO practices, and in particular within designing technology architectures. Service operations provides the specifics on planning and implementing service management technology support as well as a guide to generic requirements for technology to support process capability within service design, service operation and service transition. To meet the learning outcomes and examination level of difficulty, the candidates must be able to understand, describe, identify, demonstrate, apply, distinguish, produce, decide or analyse: • The generic requirements for technology to assist service design Core Guidance References – SD 7.1 • The evaluation criteria for technology and tooling for process implementation Core Guidance References - SD 7.2 • The good practices for practice and process implementation Core Guidance References - SD 8.2, 8.3, 8.4 • The challenges, critical success factors and risks related to implementing practices and processes Core Guidance References - ST 9.1, 9.2, 9.3, SO 9.1, 9.2, 9.3, SD 9.1, 9.2, 9.3 • How to plan and implement service management technologies Core Guidance References – SO 8.5 • The consideration for implementing technologies in supporting the processes within planning, protection and optimization practice, in particular, designing technology architectures Core Guidance References - SD 3.7.3	**Up to Bloom's level 4** Applying and Analysing The candidate should reach a level of competence that supports problem solving, putting theory into practice and interpreting principles and relationships related to technology and implementation.
	Contact hours recommended – 3.0	
ITIL SC: **PPO09** **Summary, Exam Preparation and Directed Studies**	This unit summarizes the material covered in the previous units and prepares candidates for the examination. It is likely that most course providers will wish to offer, and review, at least one mock examination opportunity.	
	Contact hours recommended – 2.0	

Lecture and exercises

Meeting the learning objectives of this syllabus can be aided by the use of practical exercises during the delivery of an accredited course. It is recommended that course providers make use of exercises to enhance the reinforcement of the learning objectives in this syllabus. To aid course providers, there are areas within each learning unit whose learning objective includes such phrases as "identify, describe, analyse", etc, which may be considered as opportunities to introduce practical course exercises. These are not mandated areas for practical exercises, but provided as suggestions for use by course providers.

Format of the Examination

Type	Eight (8) multiple choice, scenario-based, gradient scored questions. Each question will have 4 possible answer options, one of which is worth 5 marks, one which is worth 3 marks, one which is worth 1 mark, and one which is a distracter and achieves no marks.
Duration	Maximum 90 minutes for all candidates in their respective language
Provisions for additional time relating to language	Candidates completing an exam in a language that is not their mother tongue have a maximum of 120 minutes to complete the exam and are allowed the use of a dictionary.
Prerequisite	• ITIL Foundation Certificate in IT Service Management (or other appropriate earlier ITIL and bridge qualifications – see *Prerequisite Entry Criteria* on p5) • Completion of an Accredited course from an ITIL Accredited Training Provider
Supervised	Yes
Open Book	No
Pass Score	28/40 or 70%

Criteria of Training Competence

This syllabus can only be delivered to target groups by an accredited provider/trainer. Any provider/trainer must hold the following qualifications to be eligible to provide this syllabus:

Criteria	Eligibility	Degree of proficiency validation
Accredited Training Organisation	Required	The company shall be registered and in good standing with the Official Accreditor
ITIL Planning, Protection and Optimization Certification	Required	Instructor must present a valid certificate issued by an accredited Examination Institute
ITIL Expert Certification	Required	Instructor must present a valid certificate issued by an accredited Examination Institute

Approved Delivery Structure

Structure	Operational Standard Requirements
Training Delivery	• Training providers are free to structure and organise their training in the way they find most appropriate, provided the units of the syllabus are sufficiently covered. • Training must be delivered via an ATO based on this syllabus. Training can be delivered virtually, via an e-learning/learning technology solution.

Terminology List

After studying this course, the candidate is expected to understand the meanings of the following terms in the context of planning, protection and optimization. This list does not include terms that are explicitly mentioned within the learning units of this syllabus - for example, "critical success factor".

access management
agreed service time
agreement
alert
analytical modelling
architecture
asset
audit
availability
availability management
availability management information system
availability plan
backup
budgeting
business capacity management
business case
business continuity management
business continuity plan
business impact analysis
business objective
business relationship management
capacity
capacity plan
capacity planning
compliance
component capacity management
component failure impact analysis
confidentiality
configuration item
continual service improvement
continuous availability
continuous operation
contract
core service
countermeasure
crisis management
CSI register
customer-facing service
design

differential charging
downtime
early life support
effectiveness
efficiency
event
expanded incident lifecycle
fast recovery
fault tolerance
fault tree analysis
fixed facility

gradual recovery
high availability
immediate recovery
information security management system
information security policy
integrity

intermediate recovery
ISO/IEC 27001
ISO/IEC 27002
IT service continuity plan

maintainability
Management of Risk (M_o_R)
manual workaround
mean time between failures
mean time between service incidents
mean time to repair

mean time to restore service
modelling
operational level agreement
outcome
pattern of business activity
percentage utilization
planned downtime
portable facility
project
projected service outage
reciprocal arrangement
recovery

recovery option
recovery point objective
recovery time objective
redundancy
reliability
requirement
resilience
response time
return to normal
rights
risk management

service acceptance criteria
service capacity management
service catalogue
service design package

service failure analysis
service knowledge management system
service level agreement
service level management
service level requirement
service level target

service portfolio
service reporting
service validation and testing
serviceability
simulation modelling

single point of failure

supplier
threat
threshold
throughput
tuning
utility
vital business function
vulnerability
warranty
workaround

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