Professional Services Professional

Authority Syllabus

February 2016

1 Introduction

Employers, customers and partners have increasingly significant expectations of their Professional Services (PS) teams and the days of being able to purely rely on technical expertise are fast disappearing. The PS Professional® is the world's only non-vendor certification that recognizes technical, commercial and personal strengths.

Professionals operating in these fields typically have a number of both vendor (CCIE, Microsoft Professional) and/or non-vendor (ITIL®, PRINCE2®) certifications and are always anxious to find new, relevant certifications that will help them stand out in their highly competitive field.

Whilst recognizing such existing certifications, the PS Professional addresses this development gap with a practical and respected certification that has received a very positive response from the target industry.

The certification scheme is based upon the five core characteristics that make up a Professional Services Professional:-

- Rainmaker (Commercial)
- Athlete (Personal Effectiveness)
- Executive (Business)
- Catalyst (Operational)
- Authority (Technical)

There is a separate syllabus, course and examination for each core characteristic and there will be three levels of certification – Foundation, Practitioner and Professional.

The primary purpose of the syllabus is to provide a basis for accreditation of people involved with professional services. It documents the learning outcomes related to the use of the Professional Services Professional Accreditation Framework and describes the requirements a candidate is expected to meet to demonstrate that these learning outcomes have been achieved at each qualification level.

The target audience for this document is:

- Exam Board
- Exam Panel
- APMG Assessment Team
- Accredited Training Organizations.

This syllabus informs the design of the exams and provides accredited training organizations with a more detailed breakdown of what the exams will assess. Details on the exam structure and content are documented in the PS Professional Foundation Exam Design.

2 Foundation Qualification

2.1 Purpose of the Foundation Qualification

The purpose of the Foundation qualification is to confirm that a candidate has sufficient knowledge and understanding of the PS Professional Accreditation Framework to work as an informed member of a team involved in delivering professional services.

2.2 Target Audience

The PS Professional certification is aimed at a wide range of roles operating in professional services within the IT and Telecoms industries and professions, including – but not limited to – professional services directors and heads of departments, business solutions consultants and project/service managers.

2.3 High Level Performance Definition of a Successful Foundation Candidate

This level is aiming to measure whether a candidate could act as an effective member of a team supporting Professional Services. To this end they need to show they understand the foundations of the Professional Services Framework. Specifically:-

Authority
- Understand the potential impact of disruptive technologies
- Understand techniques and methodologies for forecasting disruptive technologies
- Understand the purpose and approaches to technology roadmapping
- Understand the steps in successful technical writing
- Understand the elements of professionally presented design documentation

3 Learning Outcomes Assessment Model

A classification widely used when designing assessments for certification and education is the Bloom's Taxonomy of Educational Objectives. This classifies learning objectives into six ascending learning levels, each defining a higher degree of competencies and skills. (Bloom et al, 1956, Taxonomy of Educational Objectives).

APMG have incorporated this into a Learning Outcomes Assessment Model that is used to provide a simple and systematic means for assessing and classifying the learning outcomes for APMG qualifications.

This structured approach helps to ensure:

A clear delineation in learning level content between different qualification levels
Learning outcomes are documented consistently across different areas of the guidance
Exam questions and papers are consistent and are created to a similar level of difficulty.

The Foundation qualification examines learning outcomes at levels 1 (knowledge) and 2 (comprehension). The Practitioner qualification tests learning outcomes at levels 2 (comprehension), 3 (application) and 4 (analysis).

QUAL Learning Outcomes Assessment Model				
	1.Knowledge	**2. Comprehension**	**3. Application**	**4. Analysis**
Generic Definition from APMG Learning Outcomes Assessment Model	Know key facts, terms and concepts from the manual/guidance	Understand key concepts from the manual/guidance	Be able to apply key concepts relating to the syllabus area for a given scenario	Be able analyse and distinguish between appropriate and inappropriate use of the method/guidance for a given scenario situation
Qualification Learning Outcome Assessment Model	Know facts, including characteristics and attributes required of a Professional Services Professional.	Understand the characteristics and attributes of a Professional Services Professional and can explain how these are applied.	Not applicable to Foundation qualification	Not applicable to Foundation qualification

4 Syllabus Areas

The syllabus is presented as one syllabus area representing one of the five modules within the PS Professional.

Syllabus Area Code	Syllabus Area Title
AU	Authority - Technical

5 Syllabus Presentation

Each learning outcome is supported by a description of the requirements that a candidate is expected to meet to demonstrate that the learning outcome has been achieved at the qualification level indicated. These are shown as syllabus topics.

All Foundation level requirements are assumed to have been met for Practitioner level and are not directly assessed again, although Foundation level knowledge and understanding will be used when demonstrating Practitioner application and analysis learning outcomes.

The syllabus for each module is presented in the following format:

Syllabus Area Code **AU [2]**		**Syllabus Area :** ***PS Professional*® *Module* (AU)** [1]	**Foundation**	**Practitioner**	**Primary References**
Level	Topic				
Know fact, terms and concepts relating to the *syllabus area*. [3] **Specifically to recall:**					
01 [4]	01 [5]	[6]	[7]		[8]
01	02				

Key to the Syllabus Area table

1	Syllabus Area	Module within the PS Professional Accreditation Framework.
2	Syllabus Area Code	A unique 2 character code identifying the PS Professional Module.
3	Learning Outcome (topic header shown in bold)	A statement of what a candidate will be expected to know, understand or do.
4	Level	Classification of the learning outcome against the APMG OTE Learning Outcomes Assessment Model.

5	Topic Reference	Number of the topic within the learning level.
6	Topic Description	Description of what is required of the candidate to demonstrate that a learning outcome has been achieved at the qualification level indicated
7	Foundation/Practitioner	Shows at which qualification level the topic is assessed. N.B A topic is only assessed at one qualification level.
8	Primary Reference	The main reference supporting the topic. Section numbers are used where possible or page numbers if sections are not available.

6 Important Points

The following points about the use of the syllabus should be noted.

6.1 PS Professional Accreditation Framework References

The PS Professional Accreditation Framework references provided should be considered to be indicative rather than comprehensive, i.e. there may be other valid references within the materials. The Authority references the following publications as source material:

- The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail
  ISBN: 0-87584-585-1
- Meeting the Challenge of Disruptive Change – Harvard Business Review.pdf
- Persistent Forecasting for Disruptive Technologies (2009)
  ISBN: 978-0-309-11660-2
- Technological Forecasting & Social Change 71 (2004) 5–26
  Technology Roadmapping – A planning framework for evolution and revolution.pdf
- Technology Roadmapping: Linking technology resources to business objectives.pdf
- Technology Planning for Business Competiveness – A Guide to Developing Technology Roadmaps.pdf
- Handbook of Technical Writing
  ISBN: 978-1-4576-7552-2

7 Syllabus Exclusions

There are no exclusions.

Syllabus Area Code AU		Syllabus Area: *Authority* (AU)	Foundation	Practitioner	Primary References
Level	Topic				
Understand the Technical skills required of a Professional Services Authority. **Specifically to understand the:**					
02	01	Factors that characterize technology from more general knowledge	✓		Technological Forecasting & Social Change 71 (2004) 5–26: Technology Roadmapping - A Planning Framework for evaluation and revolution Technology Roadmapping – Linking technology resources to business objectives
02	02	Difference between explicit technological knowledge and tacit technological knowledge	✓		Technological Forecasting & Social Change 71 (2004) 5–26: Technology Roadmapping - A Planning Framework for evaluation and revolution Technology Roadmapping – Linking technology resources to business objectives
02	03	Definition of technology management proposed by the European Institute of Technology and Innovation Management (EITIM)	✓		Technological Forecasting & Social Change 71 (2004) 5–26: Technology Roadmapping - A Planning Framework for evaluation and revolution Technology Roadmapping – Linking technology resources to business objectives

Syllabus Area Code AU		Syllabus Area: *Authority* (AU)	Foundation	Practitioner	Primary References
02	04	Link between technology strategy and business strategy	✓		Technological Forecasting & Social Change 71 (2004) 5–26: Technology Roadmapping - A Planning Framework for evaluation and revolution Technology Roadmapping – Linking technology resources to business objectives
02	05	Three questions used to stimulate the development of a business strategy, involving technological considerations	✓		Technological Forecasting & Social Change 71 (2004) 5–26: Technology Roadmapping - A Planning Framework for evaluation and revolution
02	06	Factors that affect an organization's capability to change and its migration: resources, processes, values and culture	✓		Meeting the Challenge of Disruptive Change
02	07	Difference between sustaining technologies and disruptive technologies	✓		The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail Meeting the Challenge of Disruptive Change
02	08	Difference between emerging technologies and disruptive technologies	✓		Persistent Forecasting of Disruptive Technologies (2009) / 2 Existing Technology Forecasting Methodologies http://www.nap.edu/openbook.php?record_id=12557&page=11
02	09	Attributes to consider when assessing the disruptive influence of a technology	✓		Persistent Forecasting of Disruptive Technologies (2009) / 2 Existing Technology Forecasting Methodologies http://www.nap.edu/openbook.php?record_id=12557&page=35

Syllabus Area Code AU		Syllabus Area: *Authority* (AU)	Foundation	Practitioner	Primary References
02	10	Six distinct categories of disruptive technology: • Enablers • Catalysts • Morphers • Enhancers • Superseders • Breakthroughs	✓		Persistent Forecasting of Disruptive Technologies (2009) / 2 Existing Technology Forecasting Methodologies http://www.nap.edu/openbook.php?record_id=12557&page=37
02	11	Signposts for signaling the emergence of potentially disruptive technologies	✓		Persistent Forecasting of Disruptive Technologies (2009) / 2 Existing Technology Forecasting Methodologies http://www.nap.edu/openbook.php?record_id=12557&page=40
02	12	Principles of disruptive technologies	✓		The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail
02	13	Organizational structure required to best meet an innovation challenge (Fitting the tool to the task)	✓		Meeting the Challenge of Disruptive Change
02	14	Technology transitions in terms of technology S-curves and three layers of sociotechnical change: • Macro: evolving sociotechnical landscapes • Meso: a patchwork of regimes • Micro: novel configurations	✓		Technological Forecasting & Social Change 71 (2004) 5–26: Technology Roadmapping - A Planning Framework for evaluation and revolution
02	15	Two types of data used in technology forecasting: statistical and expert opinion	✓		Persistent Forecasting of Disruptive Technologies (2009) / 2 Existing Technology Forecasting Methodologies http://www.nap.edu/openbook.php?record_id=12557&page=19

Syllabus Area Code AU		Syllabus Area: *Authority* (AU)	Foundation	Practitioner	Primary References
02	16	Characteristics of Statistical data defined by Vanston and Vanston: • Currency • Completeness • Potential bias • Gathering technique • Relevancy	✓		Persistent Forecasting of Disruptive Technologies (2009) / 2 Existing Technology Forecasting Methodologies http://www.nap.edu/openbook.php?record_id=12557&page=19
02	17	Characteristics of data derived from expert opinion defined by Vanston and Vanston: • Qualification of experts • Bias • Balance	✓		Persistent Forecasting of Disruptive Technologies (2009) / 2 Existing Technology Forecasting Methodologies http://www.nap.edu/openbook.php?record_id=12557&page=19
02	18	Four types of technology forecasting methodologies defined by Vanston and Vanston: 1. Judgmental or Intuitive methods 2. Extrapolation and trend analysis 3. Models 4. Scenarios and simulations	✓		Persistent Forecasting of Disruptive Technologies (2009) / 2 Existing Technology Forecasting Methodologies http://www.nap.edu/openbook.php?record_id=12557&page=20
02	19	Techniques used in Judgmental or Intuitive technology forecasting, including: 1. Group Forecasts 2. Delphi Method	✓		Persistent Forecasting of Disruptive Technologies (2009) / 2 Existing Technology Forecasting Methodologies http://www.nap.edu/openbook.php?record_id=12557&page=20
02	20	Techniques used in Extrapolation and Trend Analysis, including: 1. Trend Extrapolation 2. Gompertz and Fisher-Pry Substitution Analysis 3. Analogies 4. Morphological Analysis (TRIZ)	✓		Persistent Forecasting of Disruptive Technologies (2009) / 2 Existing Technology Forecasting Methodologies http://www.nap.edu/openbook.php?record_id=12557&page=21

Syllabus Area Code AU		Syllabus Area: *Authority* (AU)	Foundation	Practitioner	Primary References
02	21	Laws of Technological Evolution: • Increasing degrees of ideality • Non uniform evolution of subsystems • Transition to a higher level system • Increased flexibility • Shortening of energy flow path • Transition from macro-to-microscale	✓		Persistent Forecasting of Disruptive Technologies (2009) / 2 Existing Technology Forecasting Methodologies http://www.nap.edu/openbook.php?record_id=12557&page=23
02	22	Model-based techniques for forecasting disruptive technology, including: 1. Theory of Increasing Returns 2. Chaos Theory and Artificial Neural Networks 3. Influence Diagrams	✓		Persistent Forecasting of Disruptive Technologies (2009) / 2 Existing Technology Forecasting Methodologies http://www.nap.edu/openbook.php?record_id=12557&page=24
02	23	Purpose of Short term, Medium term and Long term technology forecasting	✓		Persistent Forecasting of Disruptive Technologies (2009) / 2 Existing Technology Forecasting Methodologies http://www.nap.edu/openbook.php?record_id=12557&page=30
02	24	Factors that influence adoption of disruptive technologies: • Investment and cost • Regional needs influences • Social and cultural attitudes • Demographics • Geopolitical • Practical knowledge and Entrepreneurship • Crossover potential	✓		Persistent Forecasting of Disruptive Technologies (2009) / 2 Existing Technology Forecasting Methodologies http://www.nap.edu/openbook.php?record_id=12557&page=42

Syllabus Area Code AU		Syllabus Area: *Authority* (AU)	Foundation	Practitioner	Primary References
02	25	Purpose of a Technology Roadmap	✓		Technological Forecasting & Social Change 71 (2004) 5–26: Technology Roadmapping - A Planning Framework for evaluation and revolution Technology Planning for Business Competitiveness Technology Roadmapping: Linking technology resources to business objectives
02	26	Similarities between technology roadmapping and other graphical planning approaches: • PERT (program evaluation and review technique) • Gantt	✓		Technological Forecasting & Social Change 71 (2004) 5–26 (refs 43-51) : Technology Roadmapping - A Planning Framework for evaluation and revolution
02	27	Purpose of the following types of Technology Roadmap: 1. Product planning 2. Service/capability planning 3. Strategic planning 4. Long-range planning 5. Knowledge asset planning 6. Program planning 7. Process planning 8. Integration planning	✓		Technological Forecasting & Social Change 71 (2004) 5–26: Technology Roadmapping - A Planning Framework for evaluation and revolution Technology Roadmapping: Linking technology resources to business objectives
02	28	Advantages and disadvantages of the eight graphical formats of Technology Roadmaps: 1. Multiple layers 2. Bars 3. Tables 4. Graphs (experience or S-curve) 5. Pictorial 6. Flow charts 7. Single layer 8. Text	✓		Technological Forecasting & Social Change 71 (2004) 5–26: Technology Roadmapping - A Planning Framework for evaluation and revolution Technology Roadmapping: Linking technology resources to business objectives

Syllabus Area Code		Syllabus Area: *Authority* (AU)	Foundation	Practitioner	Primary References
AU					
02	29	Purpose of the four workshops in the Standard T-Plan Fast Start Technology Roadmapping (Product) Process: • Workshop 1: Market • Workshop 2: Product • Workshop 3: Technology • Workshop 4: Charting	✓		Technological Forecasting & Social Change 71 (2004) 5–26: Technology Roadmapping - A Planning Framework for evaluation and revolution Technology Roadmapping: Linking technology resources to business objectives
02	30	Dimensions of a multi-layer roadmap: • Time • Layers • Annotation • Process	✓		Technological Forecasting & Social Change 71 (2004) 5–26: Technology Roadmapping - A Planning Framework for evaluation and revolution Technology Roadmapping: Linking technology resources to business objectives
02	31	Factors that contribute to (and hinder) successful technology roadmapping	✓		Technology Roadmapping: Linking technology resources to business objectives
02	32	Three broad levels of roadmap resolution: • Industry roadmaps • Technology roadmaps • Product roadmaps	✓		Technology Planning for Business Competitiveness
02	33	Difference between a 'market-driven pull' and 'technology-driven push' approach to roadmapping/technology forecasting	✓		Technology Planning for Business Competitiveness Persistent Forecasting of Disruptive Technologies (2009) / 2 Existing Technology Forecasting Methodologies http://www.nap.edu/openbook.php?record_id=12557&page=41

Syllabus Area Code AU		Syllabus Area: *Authority* (AU)	Foundation	Practitioner	Primary References
02	34	Five steps to Successful Technical Writing: 1. Preparation 2. Research 3. Organization 4. Writing 5. Revision	✓		Handbook of Technical Writing
02	35	Four major tasks in the Preparation step of successful technical writing: 1. Establishing the purpose 2. Assessing the audience and context 3. Determining the scope of coverage 4. Selecting the appropriate medium	✓		Handbook of Technical Writing
02	36	Use of primary and secondary research and sources of information	✓		Handbook of Technical Writing
02	37	Considerations in the Organization step of successful technical writing: 1. Methods of development a. Cause-and-effect b. Chronological c. Comparison d. Definition e. Division-and-classification f. General-to-specific g. Order of importance h. Sequential i. Spatial 2. Outlining a. Advantages b. Coherence c. Transition	✓		Handbook of Technical Writing
02	38	Differences between the Writing and Revision steps in successful technical writing	✓		Handbook of Technical Writing
02	39	Rules governing the use of copyright material, including: 1. Use of quotations 2. Use of paraphrasing 3. Plagiarism 4. Repurposing	✓		Handbook of Technical Writing
02	40	Best practice in creating and integrating visuals	✓		Handbook of Technical Writing
02	41	Principles to consider for the layout and design of technical writing	✓		Handbook of Technical Writing
02	42	Difference between writing in the indicative mood, imperative mood and subjunctive mood	✓		Handbook of Technical Writing
02	43	Requirements of an effective sentence	✓		Handbook of Technical Writing
02	44	Functions of a paragraph and the importance of unity and coherence	✓		Handbook of Technical Writing

Syllabus Area Code AU		Syllabus Area: *Authority* (AU)	Foundation	Practitioner	Primary References
02	45	Difference between conciseness and brevity	✓		Handbook of Technical Writing
02	46	Factors that contribute to clarity in technical writing	✓		Handbook of Technical Writing
02	47	Typical logic errors	✓		Handbook of Technical Writing
02	48	Difference between passive and active voice	✓		Handbook of Technical Writing
02	49	Ethical issues to consider in technical writing	✓		Handbook of Technical Writing
02	50	Types of biased language and how to avoid it	✓		Handbook of Technical Writing
02	51	Possible reasons for affectation in technical writing and how to avoid it	✓		Handbook of Technical Writing
02	52	Correct use of punctuation	✓		Handbook of Technical Writing
02	53	Appropriate use of abbreviations, acronyms and initialisms in technical writing	✓		Handbook of Technical Writing
02	54	Appropriate use of capitalization in technical writing	✓		Handbook of Technical Writing