



# **ISCA Infrastructure & Project Finance Qualification**

## **Project Lifecycle**

## **Scope of Content**

*Updated: 11 July 2019*

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**1. Scope of content**

Detailed Topics	Learning Outcomes	Proficiency Level
<b>Topic 1: Project Development</b>		
<p>1.1. Overview of the infrastructure sector</p> <p>a. Introduction to infrastructure</p> <p>b. Types of infrastructure projects</p> <p>c. Need for infrastructure</p>	<p>Candidates will be able to:</p> <p>(1) Explain the importance and benefits of developing infrastructure.</p> <p>(2) Discuss the need for infrastructure in the global, Asian and Singapore context.</p> <p>(3) Recognise the characteristics of an infrastructure project.</p> <p>(4) State the major sectors in infrastructure.</p>	Foundation
<p>1.2. Project planning and preparation (government view)</p> <p>a. Project lifecycle</p> <p>b. Project planning process</p> <p>c. Project preparation process</p>	<p>Candidates will be able to:</p> <p>(1) Summarise the stages in a typical infrastructure project lifecycle.</p> <p>(2) Define the objectives and outputs of planning and preparation stages.</p> <p>(3) Recognise the key activities carried out during the planning and preparation stages.</p>	Foundation
<p>1.3. Studies and tools of project development</p>	<p>Candidates will be able to:</p> <p>(1) Explain the purpose of conducting an option analysis</p>	Foundation

**ISCA Infrastructure & Project Finance Qualification  
Project Lifecycle**

<b>Detailed Topics</b>	<b>Learning Outcomes</b>	<b>Proficiency Level</b>
<p>a. Introduction to option analysis</p> <p>b. Feasibility study and business case</p> <p>c. Multi-criteria analysis (MCA)</p> <p>d. Cost benefit analysis (CBA)</p> <p>e. Value for money analysis (VFM)</p> <p>f. Fiscal planning for infrastructure</p>	<p>during the planning and preparation stages.</p> <p>(2) Summarise the key criteria that governments consider during feasibility assessment.</p> <p>(3) Recognise the different project development tools.</p> <p>(4) State the key components found in a multi-criteria analysis, cost benefit analysis and value for money analysis.</p> <p>(5) Explain the purpose of applying each project development tool.</p> <p>(6) Interpret the outputs of project development tools.</p> <p>(7) Summarise the purpose of an infrastructure masterplan.</p> <p>(8) Explain the role of the budgeting process for infrastructure development.</p>	

**ISCA Infrastructure & Project Finance Qualification  
Project Lifecycle**

<b>Detailed Topics</b>	<b>Learning Outcomes</b>	<b>Proficiency Level</b>
<p>1.4. Procurement methods</p> <p>a. Types of procurement method</p> <p>b. Principles and characteristics of different procurement methods</p> <p>c. Key considerations for selecting a procurement method</p>	<p>Candidates will be able to:</p> <p>(1) State the various procurement methods used for infrastructure projects.</p> <p>(2) Summarise the characteristics of each procurement method.</p> <p>(3) Explain the level of risk transferring or sharing between the government and the private sector under each procurement method.</p> <p>(4) Summarise the concept of Public-Private Partnership (PPP) and its rationale.</p> <p>(5) Summarise merits of PPP for public sector and private sector.</p> <p>(6) Discuss the key commercial principles considered in a PPP project.</p> <p>(7) State the steps in the procurement selection process.</p>	<p>Foundation</p>

**ISCA Infrastructure & Project Finance Qualification  
Project Lifecycle**

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<p>1.5. Stakeholder engagement</p> <p>a. Stakeholder overview</p> <p>b. Stakeholders' roles and objectives</p> <p>c. Stakeholder engagement</p>	<p>Candidates will be able to:</p> <p>(1) Recognise the stakeholders of an infrastructure project.</p> <p>(2) Summarise roles of various stakeholders in the project.</p> <p>(3) State the objectives and interest that different stakeholders have for their involvement in the projects.</p> <p>(4) Explain the importance of a well-structured market engagement process.</p>	<p>Foundation</p>
<p>1.6. Private sector investment considerations</p> <p>a. Overview of the project selection process</p> <p>b. Activities of private sector during the project selection process</p>	<p>Candidates will be able to:</p> <p>(1) Discuss private sector investment considerations in an infrastructure project.</p> <p>(2) Recognise the stages in the private sector's investment framework and state the expected outcome at the end of each stage.</p> <p>(3) Summarise the investment criteria that the private sector consider during project selection process.</p>	<p>Foundation</p>

**ISCA Infrastructure & Project Finance Qualification  
Project Lifecycle**

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<p>1.7. Project costing and financing</p> <p>a. Composition of project cost</p> <p>b. Elements of project financing</p>	<p>Candidates will be able to:</p> <p>(1) State the high-level components of project cost.</p> <p>(2) Explain the importance of accurate estimation of the total project cost.</p> <p>(3) Describe the value flow and cash flow streams in a project.</p> <p>(4) Define key aspects of project financing and the difference between full recourse, limited recourse and non-recourse financing.</p> <p>(5) Recognise different sources for financing a project.</p>	<p>Foundation</p>
<p><b>Topic 2: Procurement Processes</b></p>		
<p>2.1 Overview of procurement processes</p>	<p>Candidates will be able to:</p> <p>(1) Describe the main types of procurement processes.</p> <p>(2) Discuss the considerations for designing a procurement process.</p> <p>(3) Identify the 10 key steps in a two-stage tender process.</p>	<p>Foundation</p>

**ISCA Infrastructure & Project Finance Qualification  
Project Lifecycle**

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<p>2.2 Expressions of interest (EOI)</p> <p>a. Request for EOI issued</p> <p>b. EOI submission</p> <p>c. EOI evaluation</p> <p>d. Shortlisting</p>	<p>Candidates will be able to:</p> <p>(1) Discuss the key steps in the EOI phase.</p> <p>(2) Understand the key contents in a request for EOI document.</p> <p>(3) Describe the key considerations for EOI evaluation, including the evaluation criteria.</p> <p>(4) Understand the considerations for shortlisting tenderers.</p>	<p>Foundation</p>
<p>2.3 Requests for tenders (RFT)</p> <p>a. Request for tenders</p> <p>b. Tender submission</p> <p>c. Tender evaluation</p> <p>d. Preferred tenderer advised</p>	<p>Candidates will be able to:</p> <p>(1) Discuss the key steps in the RFT phase.</p> <p>(2) Understand the key contents in a RFT document.</p> <p>(3) Discuss the key issues during tender submission both from the public and private perspective.</p> <p>(4) Describe the key considerations for tender evaluation, including the evaluation criteria.</p>	<p>Foundation</p>
<p>2.4 Negotiation and close</p> <p>a. Contractual close</p>	<p>Candidates will be able to:</p>	<p>Foundation</p>

**ISCA Infrastructure & Project Finance Qualification  
Project Lifecycle**

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b. Financial close	(1) Discuss the key steps required from negotiation to financial close. (2) Understand the key issues in contractual close and financial close.	
2.5 Other types of procurement processes  a. Single-stage tender process b. Unsolicited proposals	Candidates will be able to:  Discuss the other main types of procurement processes and their key benefits and risks.	Foundation
2.6 Miscellaneous considerations	Candidates will be able to:  Discuss the other considerations associated with a PPP procurement process.	Foundation