

Table of Contents

Revision History.....	3
Table of Contents	4
Acknowledgements	6
0. Introduction to this Syllabus.....	7
0.1 Purpose of this Document.....	7
0.2 Overview	7
0.3 Examinable Learning Objectives	7
1. Agile Software Development - 150 mins.	8
1.1 The Fundamentals of Agile Software Development	9
1.1.1 Agile Software Development and the Agile Manifesto	9
1.1.2 Whole-Team Approach.....	10
1.1.3 Early and Frequent Feedback	11
1.2 Aspects of Agile Approaches	11
1.2.1 Agile Software Development Approaches	11
1.2.2 Collaborative User Story Creation	13
1.2.3 Retrospectives	14
1.2.4 Continuous Integration.....	14
1.2.5 Release and Iteration Planning	16
2. Fundamental Agile Testing Principles, Practices, and Processes – 105 mins.....	18
2.1 The Differences between Testing in Traditional and Agile Approaches	19
2.1.1 Testing and Development Activities	19
2.1.2 Project Work Products	20
2.1.3 Test Levels.....	21
2.1.4 Testing and Configuration Management	22
2.1.5 Organizational Options for Independent Testing.....	22
2.2 Status of Testing in Agile Projects	23
2.2.1 Communicating Test Status, Progress, and Product Quality	23
2.2.2 Managing Regression Risk with Evolving Manual and Automated Test Cases	24
2.3 Role and Skills of a Tester in an Agile Team	25
2.3.1 Agile Tester Skills	25
2.3.2 The Role of a Tester in an Agile Team.....	26
3. Agile Testing Methods, Techniques, and Tools – 480 mins.....	27
3.1 Agile Testing Methods.....	28
3.1.1 Test-Driven Development, Acceptance Test-Driven Development, and Behavior-Driven Development.....	28
3.1.2 The Test Pyramid	29
3.1.3 Testing Quadrants, Test Levels, and Testing Types	29
3.1.4 The Role of a Tester	30
3.2 Assessing Quality Risks and Estimating Test Effort	31
3.2.1 Assessing Quality Risks in Agile Projects	31
3.2.2 Estimating Testing Effort Based on Content and Risk	32
3.3 Techniques in Agile Projects.....	33
3.3.1 Acceptance Criteria, Adequate Coverage, and Other Information for Testing	33
3.3.2 Applying Acceptance Test-Driven Development	36
3.3.3 Functional and Non-Functional Black Box Test Design	36
3.3.4 Exploratory Testing and Agile Testing	36
3.4 Tools in Agile Projects.....	38
3.4.1 Task Management and Tracking Tools	38
3.4.2 Communication and Information Sharing Tools	39
3.4.3 Software Build and Distribution Tools.....	39
3.4.4 Configuration Management Tools	39

3.4.5 Test Design, Implementation, and Execution Tools	40
3.4.6 Cloud Computing and Virtualization Tools	40
4. References.....	41
4.1 Standards	41
4.2 ISTQB Documents	41
4.3 Books	41
4.4 Agile Terminology	42
4.5 Other References	42
5. Index	43