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Why SQE Training?

9 OUT of 10 attendees of our Software Tester Certification—Foundation Level Course PASS THE ISTQB EXAM on their first try

We have over 25 YEARS LEADING the INDUSTRY in SOFTWARE TESTING

our INSTRUCTORS ranked 9.6 OUT of 10 in post-course evaluations

98% of SQE Training students would RECOMMEND us to a friend

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SQE Training Consulting helps organizations achieve business results by delivering solutions with greater speed, flexibility, and quality than traditional approaches. Our consulting experts collaboratively work with leadership and teams to develop a customized approach to your organization’s unique needs while implementing industry best practices. Our experienced team of consultants have many years of real-world experience in developing, delivering and deploying mission-critical software to market on time and on budget. We understand how to maximize return on investment, minimize unnecessary and outdated work processes, and mentor and coach teams; equipping them with the hands-on knowledge required to sustain the transformed work practices, tools and new skills.

Our services include, Agile Transformation, Agile Development, Agile Testing and Automation, DevOps Implementation, and Application Security. We provide expert assistance ranging from assessments to the formulation of software strategy through to the implementation of software best practices and tools. Whether building a go-to-market strategy, improving the efficiency and effectiveness of your software process, assessing your software for business risk, or delivering mission-critical code, SQE Training Consulting is focused on helping you ensure business results. Simply stated; we help teams and organizations develop and deliver better software.

---

### Agile Transformation Services
- Agility Assessments—assess the agility of an organization’s people, process, technology, culture
- Build and Pilot Agile—demonstrate agile success
- Rollout & Scaling Agile—scale agile across enterprise
- Agile Coaching—coach and mentor teams and individuals

### Agile Software Development Services
- Agile Project Envision—Plan an upcoming agile project
- Secure Agile Development—Build critical software using agile
- Continuous Integration / Delivery automation
- Agile Engineering Coaching—Coaching on XP-based methods

### Agile Testing & Automation Services
- Test Process Assessment—assess & improve testing
- Agile Testing & Automation—outsourced testing
- Integration of Testing and DevOps
- Security Testing—testing to identify vulnerabilities

### DevOps Implementation Services
- DevOps Transformation—Improve business value streams
- DevOps Pipeline Implementations—CI/CD automation
- DevSecOps—Integrating security into DevOps
- DevOps Coaching—Coach teams and enterprise on DevOps principles

### Software Security
- Secure Agile Development—integrate security best practices into an existing software development process
- Security Assessment & Remediation—assess software security posture and remediate identified vulnerabilities
- Integrating Security Tools into DevOps
- Security Testing—static and dynamic testing to identify security vulnerabilities

### Contact
For more information on our professional consulting services, contact Stephanie Fender, Senior Training Manager, at sfender@sqetraining.com or 904.278.2104.
Jeffery Payne is CEO and founder of Coveros, Inc., where he has led the startup and growth of the company. Prior to Coveros, Jeffery was Chairman of the Board, CEO, and co-founder of Cigital, Inc. Under his direction, Cigital became a leader in software security and software quality solutions, helping clients mitigate the business risks associated with failed software. Jeffery is a recognized software expert and speaks to companies nationwide about the business risks of software failure.

Jeff Pierce has more than 20 years of experience in software engineering management, specializing in program, project, and software quality assurance management. Jeff is also experienced in building technical teams that are rapidly able to implement solutions and deliver business value. More recently, Jeff has focused on Agile project management and, as a certified Agile ScrumMaster, has coached and mentored several client companies over the last 10 years in successfully introducing Agile practices and methodologies as part of their Agile adoption and quality software delivery.

Rob Sabourin, P. Eng., has more than 30 years of management experience, leading teams of software development professionals. A well-respected member of the software engineering community, Rob has managed, trained, mentored, and coached hundreds of top professionals in the field. He frequently speaks at conferences and writes on software engineering, SQA, testing, management, and internationalization. The author of I am a Bug!, the popular software testing children’s book, Rob is an adjunct professor of Software Engineering at McGill University.

CIO and senior consultant at TechWell, Michael Sowers leads our TechWell software development and technology teams. Mike has more than 25 years of practical experience as a global quality and test leader across multiple industries. He has led internationally-distributed quality and test teams and held accountability for configuration management and release engineering functions. Michael is a senior consultant skilled in working with organizations, both large and small, to improve their software development, testing, and delivery approaches.

Tom Stiehm is a 20 year veteran of the Information Technology industry. He has spent the past 10 years managing, designing and implementing software products and applications using agile software development methods. Prior to Coveros, Tom held a variety of CTO and architect positions at software development companies. Tom is a member of the northern Virginia BEA users group and the northern Virginia Java users group. Tom holds a B.S. degree in Computer Science from George Mason University.

For more information on our professional consulting services, contact Stephanie Fender, Senior Training Manager, at sfender@sqetraining.com or 904.278.2104.
Looking for ways to save training and travel dollars? Consider the On-Site advantages:

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Agile & DevOps

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Agile Team Workshop
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Configuration Management Best Practices
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Dev & Testing Tools

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Get Hands-On with Puppet and Vagrant
JMeter Performance Testing Workshop
Mastering HP LoadRunner® for Performance Testing
Real-World Software Testing with Microsoft Visual Studio®
Selenium Test Automation: From the Ground Up

Project Management

Certified Professional in Agile Project Management—ICAgile
Kanban Management Professional
Kanban System Design
Leading Successful Software Projects
Managing Software Risk
Managing Test Outsourcing
Team Kanban Practitioner
Transitioning to Agile Project Management

Requirements & Business Analysis

Agile Requirements Workshop
Essential Software Requirements
Finding Ambiguities in Requirements
Get Requirements Right the First Time
Mastering Business Analysis
Mastering the Requirements Process
Mastering the Requirements Process—Part II
Writing Testable Requirements

Test Automation

Advanced Tester Certification—Test Automation Engineer
Agile Test Automation—ICAgile
Implementing a Test Automation Framework
Mastering Test Automation
Mobile Test Automation Workshop
Planning, Architecting, and Implementing Test Automation
Selenium Test Automation: From the Ground Up

Testing

Advanced Tester Certification—Technical Test Analyst
Advanced Tester Certification—Test Analyst
Advanced Tester Certification—Test Automation Engineer
Advanced Tester Certification—Test Manager
Agile Tester Certification
Agile Testing Practices
Creative Software Testing
Essential Test Management and Planning
Exploratory Testing in Practice
Exploring Usability Testing
How to Break Software: Robustness Testing Unleashed
Implementing Task-Oriented Unit Testing
Just-in-Time Software Testing
Leadership for Test Managers
Mastering Test Design
Measurement and Metrics for Test Managers
Mobile Application Testing
Mobile Test Automation Workshop
Performance, Load, and Stress Testing
Requirements-Based Testing
Requirements-Based Testing Workshop
Risk-Driven Software Testing
Security Testing for Test Professionals
Software Tester Certification—Foundation Level
Systematic Software Testing
Test Management
Test Process Improvement
Testing with Use Cases

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STAR CANADA
A TECHWELL EVENT
October 14–19, 2018
Toronto, Canada

Agile Dev
Better Software
DevOps EAST
A TECHWELL EVENT
November 4–9, 2018
Orlando, FL

Take advantage of networking and access to top industry experts, and mingle with colleagues while improving your skill set. Build your week of learning to include one of our most-requested courses—Software Tester Certification—Foundation Level, Fundamentals of Agile Certification—ICAgile, or Mobile Application Testing—or take one of our top tool training courses—JMeter Performance Testing Workshop or Real-World Software Testing with Microsoft Visual Studio®.

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In the Software Tester Certification—Foundation Level training course, you’ll learn the basic skills required of a software test professional and how testing fits into software development. Find out what it takes to be a successful software tester and how testing can add significant value to software development projects. Study all the basic aspects of software testing, including a comprehensive overview of tasks, methods, and techniques for effectively testing software. In addition, learn the fundamental steps in the testing process: planning, analysis, design, implementation, evaluation, and reporting. Know what it takes to be a successful software test engineer. The ISTQB® also offers an Agile Tester Foundation Extension for those who already hold an ISTQB® Foundation Level certification. The Agile Extension will give the tester the knowledge to be part of agile testing teams and achieve high performance.

Advanced Level Certification

Advanced certification is divided into three main career tracks: Test Manager, Test Analyst, and Technical Test Analyst. SQE Training offers Advanced Tester Certification—Test Manager, Advanced Tester Certification—Test Analyst, Advanced Tester Certification—Test Automation Engineer, and Advanced Tester Certification—Technical Test Analyst courses. Each course covers the most recent updates to the ISTQB® syllabi. The ISTQB® Software Tester Certification—Foundation Level is a prerequisite for the ISTQB® Advanced Level Certification.

Move Your Career Forward

- Increase your value in both your organization and the industry
- Stand out from your peers with your professional certification
- Demonstrate you have the knowledge and skills needed for your everyday software testing challenges
- Benefit from the most widely recognized and fastest growing software tester certification in the world

ASTQB Certified Mobile Tester

SQE Training’s Mobile Application Testing is an accredited training course for the ASTQB—American Software Testing Qualifications Board’s new Certified Mobile Tester exam. A workshop-style course developed and led by leading software engineers, this course is appropriate for both novice and experienced software testers who are new to mobile application testing, as well as some technical support personnel, business analysts, and test managers.
ICAgile and Scrum Alliance® Certifications

SQE Training offers certification from two of the most recognized and well-regarded organizations within the agile universe: ICAgile and Scrum Alliance®. Delivered by top industry experts, our accredited certification courses offer agile professionals skills training and validation as well as industry recognized qualifications.

The Scrum Alliance® is a not-for-profit professional membership organization created to share the Scrum framework and transform the world of work. Successful attendees of our Certified ScrumMaster® Training are eligible to take an exam, which, upon successful completion, will qualify them as a Certified ScrumMaster® (CSM) and award them membership in the Scrum Alliance®. Successful attendees of our accredited Product Owner Certification course are registered as a Certified Scrum Product Owner (CSPO) with a two-year membership in the Scrum Alliance®. For additional information on the Scrum Alliance®, visit www.scrumalliance.org.

The International Consortium for Agile’s (ICAgile) goal is to foster thinking and learning around agile methods, skills, and tools. The ICAgile, working with experts and organizations across agile development specialties, has captured specific learning objectives for the different agile development paths and put them on the learning roadmap. ICAgile certification is skills-based and requires people to demonstrate they have learned both why (the value) and how (the mechanics) for a core set of skills.

The ICAgile Agile Testing track focuses on the differences between agile and traditional software testing approaches, agile testing strategies and techniques, and test automation. Learners also gain an understanding of the tightly-coupled nature of agile testing and development, as well as the collaboration needed to deliver quality software.

ICAgile Certification Learning Path

ICAgile Certified Professional: Foundation of DevOps
Developed and taught by leading DevOps consultants, Fundamentals of DevOps provides an overview of core concepts for DevOps and is appropriate for both technical and non-technical professionals. Topics covered include continuous integration, continuous delivery, accompanying cultural changes, operational considerations, configuration management, and more. Successful participants are recognized as an ICAgile Certified Professional: Foundation of DevOps (ICP-FDO).

SAFe Agilist Certification
Leading SAFe—SAFe Agilist Certification Training
SAFe is quickly becoming a popular framework to apply Lean, Agile, and product development flow principles to improve productivity, employee engagement, time to market, and quality. Leading SAFe—SAFe Agilist Certification Training will prepare leaders to leverage the Scaled Agile Framework in an enterprise Agile transformation. This course is a Leading SAFe exam primer class; learn more at ScaledAgileFramework.com.

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Software Tester Certification—Foundation Level

Prepare for the ISTQB® Certified Tester—Foundation Level (CTFL) Exam

- Fundamentals of software testing—key concepts, context, risk, goals, process, and people issues
- Lifecycle testing—relationship of testing to development, including different models, verification and validation, and types of testing
- Test levels—system, acceptance, unit, and integration testing
- Test design techniques—black-box test methods, white-box testing, and exploratory testing
- Static testing—reviews, inspections, and static analysis tools
- Test management—team organization, key roles and responsibilities, test approach and planning, configuration management, defect classification and tracking, and test reporting
- Testing tools—selection, benefits, risks, and classifications

Are you looking for an internationally recognized certification in software testing? Delivered by top experts in the testing industry, Software Tester Certification—Foundation Level is an accredited training course to prepare you for the ISTQB® Certified Tester—Foundation Level (CTFL) exam.

The International Software Testing Qualifications Board (ISTQB) is a non-proprietary organization that has granted more than 450,000 certifications in more than 100 countries around the globe. Certification demonstrates a knowledge of software testing and is based on a Body of Knowledge and examination guidelines that are applied consistently across the world. This program is the only internationally-accepted certification for software testing accredited through its network of national boards. Software Tester Certification—Foundation Level is an ISTQB-accredited course that prepares you for the CTFL (Certified Tester—Foundation Level) exam.

CTFL certification is designed for software professionals who need to demonstrate practical knowledge of the fundamental concepts of testing—test designers, test analysts, test engineers, test consultants, test managers, user acceptance testers, and developers—as well as those who need a basic understanding of software testing, such as project managers, quality managers, development managers, business analysts, IT directors, and management consultants. Holders of the Foundation Level Core certificate are also eligible to continue on to advanced-level software testing qualifications and to qualify their competencies in agile testing.

Software Tester Certification—Foundation Level goes above and beyond the ISTQB syllabus, giving you practical knowledge you can apply now. In addition to the fundamentals of software testing, you will also learn about the relationship of testing to development, test levels, black-box test methods, white-box testing, exploratory testing, static analysis tools, and configuration management. Gain the basic skills required of a software test professional and learn how testing fits into software development. Find out what it takes to be a successful software tester and how testing can add significant value to software development projects.

Who Should Attend
This course is appropriate for individuals who recently entered the testing field and those currently seeking ISTQB® certification in software testing (CTFL). Common job functions include testers, test engineers, QA professionals, test managers, project leaders, quality analysts, and more.

Exam Guarantee
Course registrants who do not pass the exam within 60 days of completing either the virtual or public course will be provided 45 days of free access to our online eSoftware Tester Certification—Foundation Level course for additional learning.

Learn more and Register: www.sqetraining.com/stf
Advanced Tester Certification—Test Analyst

Prepare for the ISTQB® Advanced Level—Test Analyst Certification Exam

- Reduce the number of test cases you need to design, create, and execute
- Find more defects and increase test coverage
- Focus on the “edges” of your system where many of the defects hide
- Create efficient and effective test cases that cover multiple inputs
- Document complex business rules, ensure their integrity, and test them thoroughly
- Document and thoroughly test critical events and time sequences
- Create tests from use cases, a popular method for writing requirements
- Understand the role of stories in agile development and testing
- Create reduced sets of tests for large blocks of information using pair-based methods
- Explore and test the software simultaneously by tapping into your knowledge and experience
- Recognize how defects can improve the test analysis and design process
- Understand non-functional attributes of software and how to focus the test efforts

The ISTQB® Certification Advanced Test Analyst course expands on the test techniques and methods introduced in the ISTQB® Foundation certification. This course covers the topics as defined in the 2013 Advanced Test Analyst Syllabus leading towards the Advanced Test Analyst certification. There are seven general topics covered: the testing process, test management, test techniques, testing software quality characteristics, reviews, defect management, and tools. The focus is on testing techniques and methods and understanding the requirements for testing the characteristics of software beyond functionality. Specific techniques addressed include equivalence partitioning, boundary value testing, classification trees, decision tables, cause-effects diagrams, state diagrams and tables, pair-wise techniques, use cases, user stories, domain analysis, and experience-based and defect-based techniques. Additional focus is placed on the two non-functional aspects relating to software quality characteristics based on the ISO 9126 and include functionality and usability. Technical non-functional characteristics are included for familiarity and include reliability, efficiency, maintainability, and portability.

Who Should Attend

Individuals who have received the ISTQB® Foundation Level certification and have met the criteria of their specific country board for taking the advanced certification exams. Qualifications for the exams can be located on the individual country ISTQB® board web site. For the United States it is ASTQB.org. All other countries board sites can be found on ISTQB.org.

For more information regarding the criteria for taking the advanced examinations, go to www.ASTQB.org.

INSTRUCTOR SPOTLIGHT

Claire Lohr has been a professional in the computer field for more than 30 years, with the last 15 years focused on software process improvement for companies including GTE, Motorola, Westinghouse, SAIC, Boeing, and Aetna. Claire currently provides training and consulting services for a wide variety of both government and commercial clients. Her certifications are CSQE, CSDP, and CTFL. Claire is an SEI CMM Software Capability Evaluator and a Lloyd’s Register ISO 9000 Lead Auditor.

Learn more and Register: www.sqetraining.com/ata
Advanced Tester Certification—Test Automation Engineer

Prepare for the ISTQB® Advanced Level—Test Automation Engineer Certification Exam

- Develop a plan to integrate automated testing into the testing process
- Evaluate tools and technology for automation customized for your projects
- Create an approach and methodology for building a test automation architecture (TAA)
- Design and develop test automation solutions that meet the business needs
- Learn approaches to enable the transition of testing from a manual to an automated approach
- Discover how to create automated test reporting and metrics
- Understand how to manage and optimize testing assets to facilitate maintainability

This course provides participants with the knowledge and skills necessary to implement automation for software projects. The course focuses on the concepts, methods, tools, and processes for automating dynamic functional tests and the relationship of those tests to test management, configuration management, defect management, software development, and quality assurance processes.

Methods described are generally applicable across a variety of software lifecycle approaches (e.g., agile, sequential, incremental, iterative), types of software systems (e.g., embedded, distributed, mobile,) and test types (functional and non-functional testing).

Real-world practical exercises reinforce learning objectives, strengthen the understanding and application of topics in the course, and prepare participants for the exam.

Who Should Attend

Professionals in roles such as software developer, tester, test analysts, test engineer, test consultant, test lead or manager, and anyone desiring to secure advanced automation skills and/or complete the ISTQB Advanced Test Automation Engineer certification should attend.

This course may also be appropriate for anyone who wants a deeper understanding of software test automation, such as project managers, quality managers, software development managers, business analysts, IT directors, and management consultants.

This certification is aimed at professionals who are working within a tool supported software testing environment. It is also for professionals who are planning to start working within a tool supported software testing environment in the future or are working within companies that plan to do so.

Individuals who have received the ISTQB Foundation Level certification and have met the criteria for taking the advanced certification exams. For more information regarding the criteria for taking the advanced examinations, go to www.ASTQB.org.

Course Pre-Work

Prior to attending class, please download and review the following document: Advanced Level Test Automation Engineer Syllabus.

Learn more and Register: www.sqetraining.com/tae
5-Day Course Outline:

- Fundamental Test Process
  - Test Planning
  - Test Monitoring and Control
  - Test Analysis
  - Test Analysis Exercise
  - Test Design
  - Test Design Exercise
  - Test Implementation
  - Test Implementation Exercise
  - Test Execution
  - Test Execution Exercise
  - Evaluating Exit Criteria and Reporting
  - Understanding stakeholders
  - Sequential models
  - Managing non-functional testing
  - Benefits and challenges of experience-based testing
- Stakeholder Exercise
- Risk-Based Testing
  - Light-weight risk-based testing techniques
  - Heavy-weight risk-based testing techniques
  - Measuring success of risk-based testing
  - Techniques for test selection
- Risk-Based Testing Exercise
- Test Documentation
  - Project risk management
- Test Documentation Exercise
- Test Estimation
- Test Estimation Exercise
- Defining and Using Test Metrics
  - Defining and Using Test Metrics Exercise
- Business Value of Testing
- Distributed, Outsourced, and Insourced Testing
- Managing the Application of Industry Standards
- Management Reviews and Audits
  - Managing Reviews Exercise
- Metrics for Reviews
- Metrics for Reviews Exercise
- Managing Formal Reviews
- Defect Lifecycle and SDLC
- Defect Report Information
  - Defect Report Information Exercise
- Assessing Process Capability
- Test Improvement Process
- Test Improvement models
  - Improving the Test Process Exercise
  - Improving the Test Process with TMMi
  - Improving the Test Process with TPI Next
  - Improving the Test Process with STEP
- Test Tools and Automation
- People Skills
  - Skills assessment
- Individual Skills Exercise
- Test Team Dynamics
  - Technical skills—hard skills
  - Technical skills—soft skills
  - Motivation and morale
- Communications

---

Advanced Tester Certification—Test Manager

Prepare for the ISTQB® Advanced Level—Test Manager Certification Exam

- Integrate testing into your software development process
- Establish a realistic test approach and strategy
- Understand the Test Manager’s role in reviews
- Plan, estimate, and schedule the testing effort
- Dynamically monitor, manage, and report testing activities
- Understand the Test Manager’s role in defect management
- Plan and implement test automation
- Measure test effectiveness and project progress
- Evaluate and improve your test process
- Develop new skills to lead your test team

The ISTQB® Advanced Tester Certification—Test Manager training class expands on the test techniques and methods introduced in the ISTQB® Foundation Level course and addresses those areas of the ISTQB® advanced syllabus specifically related to the Advanced Test Management certification.

The course focuses on the key areas that are vital for successful test management: the foundations of software testing, test management, standards and test improvement processes, and people skills.

Specific topics covered include testing as part of the software development lifecycle, metrics, test documentation, risk analysis, estimation, test management issues, test automation, process improvement models, individual skills for testers and managers, team dynamics, leadership, and motivation.

This course is filled with hands-on exercises to help you practice the methods and techniques taught in the course. This course covers the syllabus for the Advanced Test Management certification and will help you prepare for the exam.

Who Should Attend

- Individuals who have taken the ISTQB® Certified Tester—Foundation Level training and wish to expand their knowledge and skills into more advanced areas
- Individuals who have received the ISTQB® Foundation Level certification, have met the criteria for taking the advanced certification exams, and wish to prepare for those exams
- Anyone wishing to learn more about advanced testing topics

For more information regarding the criteria for taking the advanced examinations, go to www.ASTQB.org.

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INSTRUCTOR SPOTLIGHT

Michael Sowers, CIO and senior consultant at TechWell, has more than twenty-five years of practical experience as a global quality and test leader across multiple industries. He has led internationally distributed quality and test teams and held accountability for configuration management and release engineering functions. He has worked with companies such as Fidelity Investments, CA, PepsiCo, FedEx, Southwest Airlines, Wells Fargo, ADP, Lockheed, and others to improve software quality, reduce time to market and decrease costs. Michael has also mentored and coached senior software leaders, small teams, and direct contributors worldwide and has a passion for helping teams deliver software “faster, better, and cheaper.”

Learn more and Register: www.sqetraining.com/atm

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Course Accreditations

To register, call 888.268.8770 or 904.278.0524 | www.sqetraining.com | For group pricing, email groups@sqetraining.com
Advanced Tester Certification—Technical Test Analyst
Prepare for the ISTQB® Advanced Level—Technical Test Analyst Certification Exam

The ISTQB® Advanced Tester Certification—Technical Test Analyst training course expands on the test techniques and methods introduced in the ISTQB® Foundation certification course. This three-day course covers six main areas that fall within the area of responsibility of the Technical Test Analyst: risk-based testing, structure-based testing, analytical techniques, quality characteristics for technical testing, reviews, and test tools, and automation.

This course includes extensive hands-on exercises so that you can practice and master the methods and techniques covered in the course.

Who Should Attend
- Individuals who have taken the ISTQB® Certified Tester—Foundation Level training and wish to expand their knowledge and skills into more advanced areas
- Individuals who have received the ISTQB® Foundation Level certification, have met the criteria for taking the advanced certification exams, and wish to prepare for those exams. For more information regarding the criteria for taking the advanced examinations, go to www.ASTQB.org
- Anyone wishing to learn more about advanced testing topics

For more information regarding the criteria for taking the advanced examinations, go to www.ASTQB.org.

INSTRUCTOR SPOTLIGHT

Dale Perry has nearly 40 years of experience in information technology as a programmer/analyst, database administrator, project manager, development manager, tester, and test manager. Dale’s project experience includes large system development and conversions, distributed systems, and both web-based and client/server applications. A professional instructor for more than 24 years, he has presented at numerous industry conferences on development and testing. With TechWell for 19 years, Dale has specialized in training and consulting on testing, inspections and reviews, and other testing and quality-related topics.

Learn more and Register: www.sqetraining.com/tta
Fundamentals of Agile Certification—ICAgile
A Pragmatic Approach to Adopting Agile

- Explore agile software development methodologies and approaches
- Understand differences between agile and traditional methodologies
- Learn how agile practices and principles improve the software development process
- Discover the major steps required to successfully plan and execute an agile software project
- Explore the leading agile development best practices

Organizations today are seeking ways to improve the efficiency of their software development efforts while still meeting quality objectives. Competitive pressures and customer demands continue to reduce software product release schedules, driving organizations to seek fresh new approaches to building software. Agile software development methods are often cited as a way to accelerate software delivery and get more done with less. This course will teach you how to avoid the common mistakes of agile adopters and answer some of the familiar myths and misuse.

*Fundamentals of Agile Certification* will present a roadmap for how to get started with agile along with practical advice. It will introduce you to agile software development concepts and teach you how to make them work.

You will learn what agile is all about, why agile works, and how to effectively plan and develop software using agile principles. A running case study allows you to apply the techniques you are learning as you go through the course. Key concepts that will be introduced and discussed include:

- Managing requirements using agile
- Defining and estimating user stories
- Building a release plan
- Using Scrum-based project management
- Delivering software using extreme programming

Bring your specific issues and problems to the training course for discussion as well.

This class is a prerequisite course to any of the ICAgile Tracks, including Certification in Agile Testing.

**Who Should Attend**
The audience includes software developers, software test professionals, project managers, business analysts, product managers, and line or business owners. SQE Training recommends this class both as a prerequisite for those seeking ICAgile’s Agile Testing certifications and those practitioners who recognize the need to focus on “being” agile in addition to “doing” agile.

**Course Completion and Certification**
Upon completion of this course attendees will be certified by the International Consortium of Agile (ICAgile) and awarded the ICAgile Professional designation. Additionally, the certified attendees will be listed on the ICAgile website, indicating their Professional designation and that they have completed all the learning objectives associated with the Fundamentals of Agile track.

**About the ICAgile**
The International Consortium of Agile’s goal is to foster thinking and learning around agile methods, skills, and tools. The ICAgile, working with experts and organizations across agile development specialties, has captured specific learning objectives for the different agile development paths and put them on the learning roadmap. For more information, visit www.icagile.com.

**INSTRUCTOR SPOTLIGHT**

**Jeffery Payne** is CEO and founder of Coveros, Inc., where he has led the startup and growth of the company. Prior to Coveros, Jeff was Chairman of the Board, CEO, and co-founder of Cigital, Inc. Under his direction, Cigital became a leader in software security and software quality solutions, helping clients mitigate the business risks associated with failed software.

Jeff is a recognized software expert and speaks to companies nationwide about the business risks of software failure. He has been a keynote and featured speaker at business technology conferences and frequently testifies before Congress on issues of national importance, including intellectual property rights, cyber terrorism, and software quality.

Additional instructors for this course include Richard Mills, Gene Gotimer, Dave Burke, Alan Crouch, and Jeff Pierce.

Learn more and Register: www.sqetraining.com/afm
Learn the fundamentals of agile development, the role of the tester in the agile team, and some agile testing practices. Explore the business and technology-facing tests agile projects demand and how agile testers can help the project succeed. Learn about the techniques of Test-Driven Development (TDD), Acceptance Test-Driven Development (ATDD), and Behavior-Driven Development (BDD). Learn technical and team skills testers need for success in the world of agile development.

Practice of Agile Testing Techniques
Explore agile testing processes in an interactive workshop setting. Examples are studied through a series of small group exercises and discussions.

Who Should Attend
This course is appropriate for both novice and experienced software testers. Developers expected to test within agile teams will find this course extremely useful. Test and development managers also will benefit from this course. A background of basic development and testing processes is helpful. All course delegates are expected to have experience in or knowledge of agile development fundamentals.

ISTQB® Certification
Are you looking for an internationally recognized certification in agile software testing? Delivered by top experts in the testing industry, Agile Tester Certification is an accredited training course to prepare you for the ISTQB® Foundation Level Agile Extension exam. Note: The ISTQB® Software Tester Certification—Foundation Level is a prerequisite for the ISTQB® Foundation Level Agile Extension. For more information, visit the ISTQB® Tester Extension Page or view the syllabus.

The ISTQB® Agile Tester Foundation Extension certification exam has an additional cost, which is not included in the course price.

ICAgile Certification
Successful attendees of our Agile Tester Certification course are awarded the ICAgile Certified Professional in Agile Testing (ICP-TST). Additionally, the certified attendees will be listed on the ICAgile website, indicating their designation. SQE Training recommends Fundamentals of Agile Certification—ICAgile as a prerequisite for those seeking ICAgile’s Agile Testing certifications.

ATTEND IN CONJUNCTION WITH THESE CONFERENCES

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Learn more and Register: www.sqetraining.com/atc

Course Accreditations

To register, call 888.268.8770 or 904.278.0524 | www.sqetraining.com | For group pricing, email groups@sqetraining.com
Agile Test Automation—ICAgile
Successful Automation in an Agile Environment

- Discover how to implement test automation as stories are implemented
- Confidently deliver shippable product increments each sprint using automation
- Understand how to collaborate with business analysts, programmers, and customers to integrate automation into your team’s workflow
- Work without the need of separate, independent test automation teams
- Learn how agile teams can transition legacy automation to an agile framework
- Explore how complex non-functional testing can be automated in a sprint
- Discover how tools such as mind mappers, recorders, and note takers generate defensible evidence of regulatory compliant testing

Agile teams deliver potentially shippable software at the end of each iteration (one to four weeks) or even possibly every day. This goal can’t be achieved without automated tests, which many teams struggle with. This class will teach automation techniques to increase testing efficiency, including regression testing, story and feature testing, and enhancement of exploratory testing. Test Driven Development techniques, precise test and tool selection, appropriate automation design, and team collaboration can be combined to fully integrate testing into agile delivery teams and provide the efficiency necessary for project success.

Explore the many ways automation supports agile testing activities. Test automation purpose, theory, and principles are reviewed. We look at how test automation is implemented in diverse organizations. The course presents many types of automation illustrated with example test descriptions, source code samples, and example test scripts.

Examples of automated tests for Test Driven Development (TDD), Acceptance Test Driven Development (ATDD), and Behavior-Driven Development (BDD) will be given.

Who Should Attend
This course is for agile team members involved in testing, programming, business analysis, software construction, and deployment. Product owners, managers, and other development professions will gain important insights into the benefits and trade-offs related to agile test automation. No specific prerequisites are assumed, and any technical concepts will be explained; however, attendees are expected to have some software and agile knowledge or experience.

Course Completion and Certification
Upon completion of this course attendees will have met the requirements for the ICAgile Certified Professional in Test Automation (ICP-ATA) designation. SQE Training recommends Fundamentals of Agile Certification—ICAgile and Agile Tester Certification as prerequisites for those seeking the ICP-ATA designation.

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INSTRUCTOR SPOTLIGHT

Robert Sabourin has more than 34 years of management experience leading teams of software development professionals. A well-respected member of the software engineering community, Robert has managed, trained, mentored, and coached thousands of top professionals in the field. He frequently speaks at conferences and writes on software engineering, SQA, testing, management, and internationalization. The author of I am a Bug!, the popular software testing children’s book, Robert is an adjunct professor of Software Engineering at McGill University.

Learn more and Register: www.sqetraining.com/atu

Abbreviated outline—full outline available on our website.
Mobile Application Testing
Techniques for Testing Mobile Devices

- Understand what makes mobile application testing different from standard software testing
- Learn some of the underlying technologies behind mobile devices and how testing is affected
- Explore the different types of mobile applications and how to test for each
- Get hands-on experience with different mobile testing tooling, including
  - Exploratory Testing
  - Testing with Simulators, Emulators, and Physical Devices
  - Service Testing
  - Cloud Emulation Testing
  - Test Automation Using Selenium IDE
  - Globalization Testing
- Discover how mobile applications work and different techniques for testing them

As smart devices take a larger portion of the market share, testers will face pressure to test their web applications for mobile devices and potentially test their own organization’s native mobile applications. To test mobile devices in this fast-paced, ever-changing industry, testers must learn to deliver quick, extensive, and successful tests on mobile devices.

Many testers attempt to apply what they know to mobile testing, and while that may work for some functional testing, it often leaves many critical features untested. Untested, critical faults can mean a swift end to a mobile application in the market. Thus, learning how to identify common issues in mobile applications and how to properly test the unique aspects of a mobile application is the only way to be successful.

Hands-on Exercises
In this workshop you will learn about mobile application testing through hands-on activities, exercises, discussions, and demos. You will explore mobile testing techniques on your mobile device, so a mobile device, smartphone, or tablet is required.

Who Should Attend
This introductory course is appropriate for both novice and experienced software testers who are new to mobile application testing. Technical support, business analysts, and test managers may also find this course helpful. A background of basic software testing principles is required.

This course also has a 1-day, hands-on companion course that will teach you Test Automation utilizing Selenium IDE and WebDriver for mobile web testing, Mobile Test Automation Workshop.

ASTQB Mobile Testing Certification
ASTQB’s Mobile Tester Certification exam was created using the latest mobile testing standards. The certification is based on the ASTQB Mobile Tester syllabus (body of knowledge) that was created by a group of international experts. SQE Training recommends Software Tester Certification—Foundation Level or the CTFL as a prerequisite for those seeking ASTQB Mobile Testing Certification.

INSTRUCTOR SPOTLIGHT
Jeff Pierce has more than 20 years of experience in software engineering management, specializing in program, project, and software quality assurance management. Jeff is also experienced in building technical teams that are rapidly able to implement solutions and deliver business value. More recently, Jeff has focused on Agile project management and, as a certified Agile ScrumMaster, has coached and mentored several client companies over the last 10 years in successfully introducing Agile practices and methodologies as part of their Agile adoption and quality software delivery.

Additional instructors for this course include Alan Crouch, Max Saperstone, Brian Hicks, and Richard Mills.

Learn more and Register: www.sqetraining.com/map
Mobile Test Automation Workshop
Use Selenium and the Cloud to Test Mobile Websites

- Understand mobile web page architecture and referencing page elements in test automation
- Discover how to leverage Selenium IDE tests using WebDriver for mobile testing
- Learn how to troubleshoot mobile test automation scripts
- Understand technologies to optimize WebDriver test execution

With the growing number of mobile OSs, browsers, and platform combinations, comprehensive mobile web application testing can be a nightmare—but it doesn’t have to be! We will demonstrate ways to leverage the open source Selenium (IDE) with cloud services to test mobile web applications across multiple browsers and platforms.

In this workshop you will learn about mobile web application testing through hands-on activities, exercises, discussions, and demos. Students will experience how Selenium interacts with web browsers to test actions, inputs, and expected outcomes. Participants will examine how the Selenium framework works and learn how to expand Selenium tests to improve device and platform coverage. Students will also learn how to troubleshoot mobile web test automation scripts and technologies to optimize WebDriver test execution. This tooling and practice will then be applied to emulation testing techniques covered in the two-day Mobile Application Testing course to show how traditional web testing techniques can be transitioned to mobile web applications.

Employing a cloud-based mobile testing tool from Sauce Labs as an example service, you will learn to execute tests recorded in Selenium on a cloud-based emulation system across multiple devices, browsers, and platform configurations. Explore and discuss common errors and bug analysis techniques with a focus on testing responsive web applications. Leave with a set of proven practices for developing mobile application tests with extensive coverage while minimizing test script maintenance.

Who Should Attend
The audience includes software test professionals and software developers.

Note: Laptops are required for this class. With their laptops, participants will connect remotely via Google Chrome VNC to a specialized virtual environment for the hands-on portion of this session.

Learn more and Register: www.sqetraining.com/mtw
Fundamentals of DevOps Certification—ICAgile

- Explore the DevOps background, approach, and best practices
- Integrate test automation with DevOps
- Implement continuous testing
- Learn how DevOps practices and principles improve software quality and efficiency
- Understand the differences between DevOps and traditional operational methodologies
- Discover the major steps required to successfully implement delivery pipelines

Organizations today are seeking ways to improve the efficiency of both their software development efforts and operations while still meeting quality objectives. Competitive pressures and customer demands continue to reduce software product release schedules, driving the pursuit of faster software releases, which in turn requires even more efficient testing capabilities. Agile development adoption is driving the need for increased value delivery efficiency. In this performance driven environment, software development, testing, and operations must evolve to meet iteration and release delivery goals while continuing to meet organizational quality objectives.

DevOps is the combination of development, testing, and operations and includes continuous integration, automated testing, continuous delivery, and rapid deployment practices. Because DevOps practices require confidence that changes made to the code base will function as expected, automated testing is an essential ingredient that is integrated in the process in every step and relied upon for enforcement of quality gates and to ensure overall delivery quality. This course will teach you how to avoid the common mistakes of DevOps implementations and to leverage DevOps best practices including:

- Test automation
- Automate everything
- Incremental build and delivery
- Continuous improvement
- Frequent code commits
- Infrastructure as code
- Fix the build(!) Prioritization
- Repeatable, reliable processes
- Collaboration and communication
- Operations in devops

Upon completion of the course, students will be able to recognize positive and negative patterns of software build, test, and deployment in their organization that relate to DevOps. Key concepts that will be introduced and discussed include:

- Test strategy and implementation within a ci/cd context
- Automated quality gates
- Test strategy and implementation within a ci/cd context
- Automated quality gates
- Managing configuration
- Continuous integration and delivery
- Automated deployments
- Operations management of infrastructure and data
- Organizational impacts of devops implementation

Who Should Attend

This course is appropriate for experienced software test professionals, operations engineers, software developers, project managers, and business owners. No specific prerequisites are assumed; however, attendees are expected to have some experience with software builds, deployments, and automated testing.

No specific prerequisites are assumed; however, attendees are expected to have some experience with software builds, deployments, and automated testing.

ICAgile Certification

Upon completion of this course the attendee will be certified by the International Consortium for Agile (ICAgile) and awarded the ICAgile Professional (ICP-FDO) designation. The ICP-FDO is one of two Continuous Learning Certifications (CLCs) on the DevOps Track.

INSTRUCTOR SPOTLIGHT

Tom Stiehm is a 20 year veteran of the Information Technology industry. He has spent the past 10 years managing, designing and implementing software products and applications using agile software development methods. Prior to Coveros, Tom held a variety of CTO and architect positions at software development companies. Tom is a member of the northern Virginia BEA users group and the northern Virginia Java users group. Tom holds a B.S. degree in Computer Science from George Mason University.

Learn more and Register: www.sqetraining.com/fdo
Introduction to Vagrant
Installing Vagrant
Building a VM

Introduction to Puppet
Installing Puppet
Configuring a web server and a database

Automated Testing
Testing the deployment
Adding test data
Automating tests
Deploying to multiple test configurations
Re-initializing test environments for multiple test cycles

Deploying and Testing in the Cloud
Managed boxes
Remote public clouds
Using hosted test tools for test execution

Agile development adoption is driving the need for increased value delivery efficiency. Software development, testing, and operations must evolve to meet iteration and release delivery goals while continuing to meet organizational quality objectives. Testers need dedicated and controlled testing environments for each iteration that are built, deployed, and configured in a reliable and repeatable manner. DevOps can provide on-demand disposable test environments that are delivered quickly, in a known state, with pre-populated test data and automated test fixture provisioning to meet agile testing demands for multiple test environment configurations that model production.

In this hands-on lab, students will standup a local test environment including initial provisioning and configuration of a multi-tier test application, web server, DB server, and a selenium test client. Students will also utilize automation scripts to execute automated testing.

Upon completion of the course, students will understand and have hands-on experience with critical DevOps techniques including:

- The use of Puppet for system installation and configuration
- Setup and use of Vagrant workflows for creating, customizing, and configuring virtual environments
- Customization and use of automated deployment scripts to implement the environment
- Provisioning
- Deployment
- Configuration
- Test data population
- Automated test execution
- Environment cleanup/disposal

Who Should Attend
The audience includes software test professionals and software developers.

Note: Laptops are required for this class.

Learn more and Register: www.sqetraining.com/dtw
2-Day Course Outline:

Software Development
- What is ATDD
- Why ATDD is useful
- The process
- The roles and responsibilities

Acceptance Test Examples
- Acceptance test style, size, scope, clarity

The Business Tests
- Objectives
- Scope

User Stories and Scenarios
- Test Anatomy
- Tables as Tests
- System Boundary and Tests
- Events, Responses, States
- Complex Business Rule and Separation

Test Evaluation
- Common pitfalls and how to avoid them
- Maintainability, scalability
- Sustainability

Retrospective
- Transition Issues
- Motivation issues

Introduction to Cucumber for Java
- Feature Files
- Scenarios
- Step Definitions
- Asserts
- Regular Expressions
- Exercise

Scenario Outlines with Exercise

Tables with Exercise

Learn more and Register: www.sqetraining.com/aic

ATDD/BDD with an Introduction to Cucumber for Java

- Learn the Principles of Acceptance Test-Driven Development
- Discover how to turn requirements into acceptance tests
- Define what is a good acceptance test
- Learn how to use acceptance tests as a communication vehicle
- Explore how ATDD embodies Build Quality In and Shift Left
- Learn how to connect tests to production code using step-definitions
- Discover how to avoid redundancy in tests using outlines and tables

Built-in quality allows quicker delivery of business value. One of the key practices in realizing built-In quality is Acceptance Test-Driven Development (ATDD) / Behavior-Driven Development (BDD). This course describes how the triad (customer, tester, and developer) creates acceptance tests to provide a joint understanding of the requirements and demonstrates how to use those acceptance tests as a communication and verification tool. Applying these skills streamlines communication within the organization, decreases rework, raises customer satisfaction, and promotes trust within the organization. ATDD/BDD methods have demonstrated an ability to lower released errors by up to 90%. Automating the acceptance tests with Cucumber gives rapid verification that the system is delivering that business value. This course is based on Lean-Agile Acceptance Test-Driven Development by Ken Pugh.

This course helps participants understand how to transform requirements accurately into testable specifications. This is a collaborative, efficient approach that minimizes waste. It addresses requirements, specifications, implementation and testing. In addition, an introduction to Cucumber with Java is included.

Target Audience
This course is appropriate for anyone who is involved in the definition, development and quality assurance of software related products including customers, product managers, business analysts, SMEs, developers and testers.

Prerequisites
- Experience with Java

Attendees are required to bring their own laptop.

INSTRUCTOR SPOTLIGHT
Ken Pugh helps companies evolve into lean-agile organizations through training and coaching. His special interests are in collaborating on requirements, delivering business value, and using lean principles to deliver high quality quickly. Ken trains, mentors, and testifies on technology topics from object-oriented design to Linux/Unix. He has written several programming books, including the 2006 Jolt Award winner Prefactoring and his latest, Acceptance Test-Driven Development: Better Software Through Collaboration. Ken has helped clients from London to Boston to Sydney to Beijing to Hyderabad.
2-Day Course Outline:

Corporate Culture
Economics of test and failure
What is “good enough”? Test psychology
Raising testing profile
Quantitative measures of ROI
Qualitative measures of ROI
Developer/tester ratio

Preventive Testing
The Master Test Plan
Approach
Scheduling
Responsibilities
Staffing and training

Risk Analysis
Product risk analysis
Project risk analysis

Testing Strategies
Testing methodology
Entrance/exit criteria
Test coverage
Change management
Regression strategy
Automation strategy
Test environments
Metrics
Maintaining test documentation

Test Summary Report

The Appropriate Test Strategy Is Key
Test planning is essential to the success of any testing effort, but what really matters is the thought process used to create the test plan and not the document itself. Communications and agreements reached during the creation of the test plan ultimately determine the success of the testing effort. This course focuses on how to achieve a consensus on important test strategy issues, such as resource allocation, scheduling, risk prioritization, exit criteria, automation, etc.

A Proven Approach
Some organizations will need very formal plans, while others will need very little documentation, but all need some type of plan. The session uses the IEEE 829 test plan template as a basis for creating a customized test plan appropriate to the project and organization using it. Additionally, attendees will learn how to use an IEEE 829 Test Summary Report to summarize results, make recommendations, and identify process improvement opportunities.

Who Should Attend
This course is appropriate for test managers, test leads, and experienced testers who are tasked with developing a testing strategy for their organization.

Course Accreditations

Learn more and Register: www.sqetraining.com/etp
Course Outline:

Overview
Definitions
History
Styles
Strengths and weaknesses
Case studies
Lifecycle models
Context drivers

Getting Organized
Sessions
Charters
Focus and opportunity
Measures

Testing Skills
Observation
Reasoning
Test design
Failure analysis
Pivoting
Note taking

Tools
Capturing test data
Note taking and mind mapping
Test design
Combination testing
Test frameworks

References
Articles
Books
Courses
Web resources

Exercise Outline
Class exercises are used to illustrate concepts covered in the class. Students will work in teams of two, using open source tools for the exercises. We encourage you to bring applications from your work environment to use for some of the exercises.

Capabilities and Instabilities
What can the application do?
Areas of weakness?
What can break?

Variables and Emergent Behaviors
Discover variables
Explore emergent behaviors
Influencers and outcomes
Test oracles

Usage Scenarios
Who uses the software?
What do they do?
Can it be done?

Back-To-Back Testing
Side-by-side comparison
Discovering differences
Confirming capabilities

Test Design and Visual Modeling on the Fly
Equivalence partitioning and boundaries
Business logic
Decision tables

Exploring Quality Factors
Performance testing
Load testing
Stress testing

Many traditional test teams are augmenting their documented test plans and test cases with a structured, exploratory approach. Other teams adopting agile methods are replacing ad-hoc testing with exploratory techniques, allowing all development team members to effectively participate in product testing. Whether your organization is moving toward agile software practices or using a more traditional approach, exploratory testing can help you find important defects sooner.

Exploratory testing is all about simultaneously learning about the software you are testing while you are designing and executing the tests. It is used by developers for unit testing, independent testing teams for integration or system testing, and by customers implementing acceptance testing of developed or commercial off-the-shelf software packages.

In this highly interactive class, students learn about and practice session-based exploratory testing, a framework to organize testing into a series of time boxed missions or “charters.” In fulfilling a test charter, you use your skills and experience to adapt your testing actions as you learn what the application does. Through this process, one discovery leads to another and another as you explore the software under test. Exploratory testers add permanent value to projects by constructing practical notes, which provide short valuable logs that record what was discovered during each testing session.

Through a series of small group, hands-on exercises, students practice exploratory testing and improve their skills as they test. In addition, you will learn how and when to use exploratory testing practices in different project and organizational contexts. Review the tools that are available to organize and support exploratory testing, and capture data from exploratory testing sessions. Return to your team with new skills and processes to make your testing more effective—and more fun.

Who Should Attend
This course is appropriate for anyone who works in fast-paced testing environments, including test engineers, test managers, agile developers, QA engineers, and all software managers. Customers charged with acceptance testing and traditional unit testers will also benefit from the course.

This course requires hands-on work. A minimum of 1–2 workstations per person is required.

INSTRUCTOR SPOTLIGHT

Robert Sabourin has more than 34 years of management experience leading teams of software development professionals. A well-respected member of the software engineering community, Robert has managed, trained, mentored, and coached thousands of top professionals in the field. He frequently speaks at conferences and writes on software engineering, SQA, testing, management, and internationalization. The author of I am a Bug!, the popular software testing children’s book, Robert is an adjunct professor of Software Engineering at McGill University.

Learn more and Register: www.sqetraining.com/et
Generating Great Testing Ideas
Tapping Unlikely Sources to Improve Your Testing Results

- Identify a rich mosaic of testing ideas
- Learn powerful testing ideas that deliver more value with less testing
- Discover test ideas from explicit and implicit requirements and constraints
- Expose weaknesses in design by blending black box, white box, and grey box approaches
- Take a deep look at quick tests for almost any quality attributes
- Ensure the system suits the purpose of software under test

Break Out of the Rut
Are you in a rut? Is your time wasted checking compliance to incomprehensible requirements? Are you shackled to test coverage models? This tutorial helps break testers out of their bonds. Industry veteran Rob Sabourin shows how you can uncover great testing ideas. This interactive tutorial blends dynamic exercises with real world examples, teaching important concepts that can be applied right away.

Collect Test Ideas from Many Sources
This course helps testers get out of the rut, think outside the box, and uncover valuable tests from unlikely places. Many real world case studies and fully worked out examples are provided to let you get started right away.

Who Should Attend
This course is appropriate for anyone who works in fast-paced development environments, including test engineers, test managers, developers, QA engineers, and all software managers.

Learn more and Register: www.sqetraining.com/vgti
The Apache JMeter™ application is open source software, a 100% pure Java application designed to load test functional behavior and measure performance. This hands-on workshop teaches you how JMeter is used to test performance both on static and dynamic resources and Web dynamic applications. In class, you will simulate load on a server, a group of servers, or a network or object to test its strength or to analyze overall performance under different load types. The workshop format provides a rich interactive learning experience with incremental lessons and labs that build upon one another.

Who Should Attend?
This course is appropriate for software developers, software testers, test engineers, performance testers, performance engineers, test leads, and operational support roles.

Prerequisites
- Knowledge and understanding of Java
- One or more years of programming experience
- Understanding of HTTP protocol
- Knowledge of performance testing concepts
- Understanding of system architectures

LAPTOP REQUIRED

ATTEND IN CONJUNCTION WITH STAR CONFERENCES

Module 1—Introduction
Minimum Hardware Requirements, Configuration Best Practices
- Examples of JMeter Installation Topologies
- Listeners—Saving and loading response data
- Scripting and Fundamentals of Regular Expressions
- Distributed Testing in JMeter

Module 2—Overview of JMeter Functionality
- HTTP Proxy Setup
- Record and Playback
- Application Testing and Analysis
  - Thread Groups
  - Controllers—Samplers & Logic Controllers
  - Listeners
  - Assertions
  - Timers
  - Pre-processor, Post-processor and Configuration Elements
- Analyzing Metrics and Reporting

Module 3—How Test Planning is Accomplished in JMeter
- Planning a Scenario
  - Determining which test cases to perform
  - Gathering information on number of users completing each business process
  - Determine rates of business process usage
- Running a Scenario
  - Start the run manually
  - Start the run to follow the schedule
  - Viewing the logs during the test run

Module 4—Web Test Plan
- Web Test Plan Example
  - Dynamic Response
  - Correlation and analysis, scripting techniques
  - Regular Expressions and parsing Responses
  - HTTP Cookie Manager
  - HTTP link parser

Module 5—Web Service Test Plans
- Webservice Test Plan Example
  - REST API Load Testing
  - Fundamentals of REST
  - Test case development

Module 6—Beanshell Scripting
- Beanshell Scripting Basics
  - Functions and Variables
  - Generating Dynamic Values
  - Post Processor Validation

INSTRUCTOR SPOTLIGHT
Patrick J. Quilter Jr. has earned a Bachelor of Science in Computer Science & Mathematics and a Master degree in Technology Management. He has over 15 years of automation architecture experience supporting several large systems integrators, commercial enterprises, and federal government agencies. Patrick’s work as a test automation subject matter expert provides clients with the right tools, architecture, and process guidance. Patrick was awarded a US patent for a client/server, automation framework that has been configured with many popular automation engines. Adhering to a tool agnostic approach, Patrick has experience in popular open source and commercial development tools such as Selenium, Appium, JMeter, Microsoft TFS, Micro Focus (formerly HPE) UFT, QC ALM, LoadRunner, SiteScope, and IBM Rational.

Learn more and Register: www.sqetraining.com/jpt
**Key Test Design Techniques**

Proven Approaches to More Effective Testing

- Learn black-box (functional) test design techniques to find more bugs—faster
- Explore white-box (structural) methods to add more depth to your test cases
- Examine exploratory testing approaches to replace ad hoc testing
- Find out when to use each test design technique for the best results
- Learn the value of defect taxonomies in test case design

*Key Test Design Techniques* begins where many software testing courses end. Once the test plans are written, test teams are formed, and test tools are selected, it is time to create specific test cases. Because testing everything is impossible, the major task in test design is to choose a subset of all possible tests of program paths and data combinations to find important defects quickly. This course shows you how to create an effective set of test cases and develops your practical skills to become a better test engineer—in just six hours over two days!

Robert Sabourin, industry expert and author, brings the science and the art of functional, structural, and exploratory testing right to your computer. Specifically, he shares key test design techniques, including equivalence class and boundary value testing, decision table testing, state transition testing, and all pairs testing. Leave this class with a newfound confidence for developing test cases that find important bugs earlier.

**Who Should Attend**

This course is appropriate for both novice and experienced software testers. Developers in the Agile world who are now expected to write test cases will find it extremely useful. Test and development managers can also benefit. A background of basic development processes and test levels is helpful but not required.

**INSTRUCTOR SPOTLIGHT**

Robert Sabourin has more than 34 years of management experience leading teams of software development professionals. A well-respected member of the software engineering community, Robert has managed, trained, mentored, and coached thousands of top professionals in the field. He frequently speaks at conferences and writes on software engineering, SQA, testing, management, and internationalization. The author of *I am a Bug!,* the popular software testing children’s book, Robert is an adjunct professor of Software Engineering at McGill University.

Dawn Haynes is an additional instructor for this course.

Learn more and Register: [www.sqetraining.com/vktd](http://www.sqetraining.com/vktd)
Mastering Test Automation
A Proven Path to Automation Success

- Integrate your test library with the application for maximum maintainability
- Build a robust, flexible, and reusable framework with the least code possible
- Design a global error handling and recovery system
- Develop test cases using data—not code

Knowledge Is Power
Whether you are just thinking of automating testing, are right in the middle of it, or have already given up, this course is for you. Learn how to evaluate your application and implement a proven framework and automation strategy that reduces code, increases maintainability, and enables non-technical users. Take advantage of the latest test automation development tools to make your job easier and less risky while improving ROI.

A Proven Approach
This course is not about theory; it is a proven, practical, step-by-step approach that can be used with any application and any test tool. It explores how to work with developers to find out what you need and get what you want, and shows you how to organize your automation project to get results as fast as possible.

Who Should Attend
This course is designed for anyone who is either planning to automate or is already involved. No technical skills or experience are required; all technical concepts will be explained. The course is tool and application neutral, but the concepts and examples are better suited to UI testing than services or APIs.

Linda G. Hayes, as co-founder of two software test automation companies including AutoTester and Worksoft, helped pioneer structured software test automation. She is a frequent industry speaker, author, and columnist for Stickyminds. Her article on integrating quality throughout the development cycle won the Most Significant Contribution of the Year award from the Quality Assurance Institute and was published by Auerbach in their Systems Development Handbook.

Learn more and Register: www.sqetraining.com/vmta
Learn by Doing
This is a course for testers who are frustrated by the laborious and manual work that makes up day-to-day test work, anyone who has tried or wants to try scripting and programming in order to help them focus more on the sapient test activities and let the computer do the repetitive work.

During the course we will work with a strong focus on practical knowledge and learning by doing with much hands-on coding so that attendees can work independently with Python after the course. A large amount of exercises are built to give the opportunity to build simple but powerful tools using Python, which gives a deeper understanding of the opportunities that the language offers.

Why should I invest time in learning Python?
Because Python is powerful, efficient, and very fun to work in. You feel productive from the start and produce results with surprising speed. It is the perfect choice for a tester who wishes to use a programming language to assist them in their testing, and it’s not a language that ends up standing in your way. Python is well established with over 20 years of history, included out of the box in most modern operating systems. It has a diverse, huge, and active community and eco-system.

Who Should Attend
This course should be attended by engineers in a testing role or those seeking an introduction to programming concepts to develop their skills and learn more about the benefits and power of using Python for testing. The attendees are required to have basic computer knowledge and a genuine interest in learning about scripting and programming.

ATTEND IN CONJUNCTION WITH STAR CONFERENCES

STAR EAST
April 29–30, 2018
Orlando, FL

STAR WEST
Sept. 30–Oct. 1, 2018
Anaheim, CA

INSTRUCTOR SPOTLIGHT

Kristoffer Nordström is a Test Developer that in his career has worked with technologies such as telecommunications system, distributed compilers, cloud technology, smartphone OS development, embedded systems, and much more. A testing devotee and a member of the Context-Driven test community, who with his own company, Kristoffer consults and teaches the course Python for Testers because he believes in tools-assisted sapient testing.

Learn more and Register: www.sqetraining.com/pft
Performance, Load, and Stress Testing
Issues and Solutions for Verifying Software Performance Goals and Objectives

- Understand the performance testing process: planning, preparation, execution, and reporting
- Relate performance testing to the development process
- Understand performance goals and objectives
- Learn how to deal with environment and architecture issues
- Define operational profiles and load definitions
- Understand and select the various types of performance tests
- Define and select appropriate measurements

In the Real World
This course provides an introduction to the complexities of software performance testing and delivers testing skills that participants can immediately apply back on the job. Using a real-world case study, you will encounter issues, decisions, and testing experiences comparable to those in your own work environment. Working through a series of discussion-based exercises—individually, in small teams, or as a group—you will develop a workable strategy for performance testing an application/system. The focus of the exercises is on analysis of a situation and understanding the planning and design issues associated with performance testing. This course does not focus on problem analysis, tuning, debugging, or tools.

Who Should Attend
System testers, system designers, system tuners, software engineers, quality assurance professionals, and project leaders who are involved in systems testing can benefit from this course. A working knowledge of system testing and quality assurance fundamentals is assumed, but no specific technical background (e.g., UNIX, TCP/IP) is required. This course is for beginning to intermediate skill levels relating to software performance testing. This is not an advanced course dealing with specific tuning and assessment issues.

ATTEND IN CONJUNCTION WITH STAR CONFERENCES

Learn more and Register: www.sqetraining.com/plt
Requirements-Based Testing Workshop

A Disciplined Approach for Designing, Maintaining, and Executing Tests

- Develop and maintain efficient tests that cover all functional requirements
- Design test cases that force defects to appear early in testing
- Learn and practice cause-effect graphing to design more robust tests
- Learn and practice alternative test design approaches—pairwise, equivalence class
- Optimize and reduce the size of your test suite
- Integrate testing in the software development lifecycle

If your testing efforts are not achieving the payback you and your organization expect, this course is for you. Requirements-Based Testing (RBT) delivers a proven, rigorous approach for designing a consistent and repeatable set of highly optimized test cases. Companies employing RBT practices have achieved twice the requirements coverage with only half the tests they previously maintained.

Design the Test Library

The RBT process helps you validate that the requirements are clear and complete. Then, it guides you to define a set of tests verifying that the design and code fully meet those requirements. You’ll learn and practice cause-effect graphing, a test design technique that ensures that defects will be fully observable. If there are any defects in the software—even ones that could be hidden from tests by other errors—cause-effect graphing will find them. With this technique, you’ll be able to reduce the number of tests you need and make sure that every test is valuable.

Explore alternative test design techniques and the advantages and disadvantages of each. Learn how to complement functional, black-box testing with code-based, white-box testing to further ensure complete coverage and higher quality. Classroom exercises are employed throughout the course to reinforce your learning.

Leave With a Testing Process That Integrates With the Development Lifecycle

Take back a lifecycle testing process that incorporates testing as an integrated—and integral—part of the software development project. With the RBT process, your next project will experience significant time and cost savings while helping the test team develop better estimates and dynamically track test and project progress.

Bring samples from your own projects to work on and evaluate during class.

Who Should Attend

Requirements-Based Testing is for test managers, test engineers, QA specialists, software managers, and anyone responsible for developing tests and test suites.

Although the focus of this course is on process and techniques, there will be a brief introduction to the BenderRBT™ software tool, which automates much of the requirements-based testing process.

Learn more and Register: www.sqetraining.com/rbt

ATTEND IN CONJUNCTION WITH STAR CONFERENCES

STAR EAST
A TECHWELL EVENT

April 29–May 1, 2018
Orlando, FL

To register, call 888.268.8770 or 904.278.0524 | www.sqetraining.com | For group pricing, email groups@sqetraining.com
2-Day Course Outline:

**Introduction to Security Testing**
- History of information security
- The software security problem
- Understanding risk
- Security testing approaches
- Security testing framework

**Security Testing Prior to Development**
- Security policy and standards
- Secure software development process

**Security Testing During Definition and Design**
- Security requirements
- Architecture and design reviews
- Threat modeling
- Security test planning

**Security Testing During Implementation**
- Secure code review
- Security testing features and functions
- Security testing interfaces and exceptions

**Understanding and Testing Security Controls**
- Authentication and access control
- Input validation and encoding
- Encryption
- User and session management
- Error and exception handling
- Audit and logging

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**Security Testing for Testing Professionals**

- Learn how testing professionals can effectively security test software
- Discover how applications are developed and tested with security in mind
- Learn how to use security requirements to plan your testing efforts
- Explore key aspects of security testing—web security, threat modeling, risk assessment
- Examine technical and team skills you need for success
- Learn to use common security testing tools for a variety of testing purposes

Your organization is doing well with functional, usability, and performance testing. However, you know that software security is a key part of your assurance and compliance strategy for protecting applications and critical data. Left undiscovered, security-related defects can wreak havoc in a system when malicious invaders attack. If you don’t know where to start with security testing and don’t know what you are looking for, this course is for you. It describes how to get started with security testing, introducing foundational security testing concepts and showing you how to apply those testing concepts with free and commercial tools and resources. Offering a practical risk-based approach, the instructor discusses why security testing is important, how to use security risk information to improve your test strategy, and how to add security testing into your software development lifecycle.

**Practice of Security Testing**

Explore security testing in an informal and interactive workshop setting. Examples are studied through a series of small group exercises and discussions.

**Who Should Attend**

This course is appropriate for software development and testing professionals who want to begin doing security testing as part of their assurance activities. Test and development managers will benefit from this course as well. A background in software testing is necessary for this course.

**INSTRUCTOR SPOTLIGHT**

Gene Gotimer is a senior architect at Coveros, Inc., a software company that uses agile methods to accelerate the delivery of secure, reliable software. As a consultant, Gene works with his customers to build software better, faster, and more securely by introducing agile development and DevOps practices. He has many years of experience with web-based enterprise application design and a variety of development ecosystems, including continuous integration, continuous delivery, and DevOps. Gene feels strongly that repeatability, quality, and security are all strongly intertwined; each is dependent on the other two, which makes DevOps that much more crucial to software development.

Jeff Payne and Alan Crouch are additional instructors for this course.

Learn more and Register: [www.sqetraining.com/stp](http://www.sqetraining.com/stp)
Selenium Test Automation: From the Ground Up

Learn how to incorporate test automation in the development process
Discover what Selenium is and how it works
Find out how to craft maintainable test frameworks and test suites
Understand pain points and solutions to common UI Testing problems

Selenium is the industry-standard tool for doing black box, User Interface Testing of web applications, and is a much sought after skill in today’s world of test automation. As companies transition to agile environments, Selenium is an essential tool to release quality software more quickly. This course not only demonstrates how to use Selenium, but it will show you how to approach testing websites in general. This course will teach you how to incorporate industry best practices to build maintainable User Interface test suites.

Who Should Attend
- Those doing manual testing who want to automate and who need to understand what Selenium is and how it can be adopted
- Developers who are familiar with automated testing but need to better understand the details of Selenium and creating maintainable test suites with it

Prerequisites and Requirements
- Familiarity with Java or Open Source Programming
- Laptop with administrator access or a Virtual Machine installed to load a provided image
- Installation of the Java Development Kit (JDK)
- Installation of IntelliJ Community Edition IDE

ATTEND IN CONJUNCTION WITH THESE CONFERENCES

Agile Dev WEST
June 3–4, 2018
Las Vegas, NV

AGILE TESTING DAYS USA
June 25–26, 2018
Orlando, FL

INSTRUCTOR SPOTLIGHT

Titus Fortner is a core contributor to Selenium project and the maintainer of the Ruby bindings. He spends a significant amount of time writing open source testing software built on top of Selenium. He is the project lead for Watir and is active in supporting these projects on Stack Overflow, message boards, and in the Selenium Stack and irc. Titus has implemented automated tests at five different companies and currently works at Sauce Labs as a Solution Architect, working with the community to facilitate testing best practices.

Learn more and Register: www.sqetraining.com/sta
Testing APIs with Confidence

- Learn Behavior-Driven Development as a testing strategy
- Understand Gherkin as a powerful feature descriptor
- Use Runscope to implement and share test suites
- Automate your test suite to build your team's confidence

Building software with an “API first” mindset is a powerful approach that speeds development for single page applications, mobile apps, and even backend web apps. Unfortunately, the way most teams handle testing is incomplete at best and wrong at worst. We have things that resemble Unit Tests, that are integration tests which really just represent our understanding of the internal workings of our system. At the end of the day, we’re still not sure it works as expected.

Instead, let’s flip the entire testing experience around and look at it from the API user’s point of view. Using Behavior-Driven Development or Runscope, we can build tests to validate the external behavior of our API and know that our API is working as expected.

Who Should Attend

This course is ideal for Agile and DevOps teams who need to define and validate specific API use cases and understand the boundaries and expectations of the system. While some of the course requires writing code, the majority can be accomplished with a simple text editor, web browser, and access to the API we’re testing.

Prerequisites and Requirements

- Familiarity with PHP or Python
- An environment configured with PHP 7.x or Python 3.x
- A text editor or IDE
- An account with Runscope for your API testing tool
- An account with Github for API access

INSTRUCTOR SPOTLIGHT

Keith Casey currently serves on the Platform Team at Okta working on Identity and Authentication APIs. Previously, he served as an early Developer Evangelist at Twilio and before that worked on the Ultimate Geek Question at the Library of Congress. His underlying goal is to get good technology into the hands of good people to do great things. In his spare time, he helps build and support the Austin tech community, blogs at CaseySoftware.com and is fascinated by monkeys. He is also a co-author of “A Practical Approach to API Design” from Leanpub.

Learn more and Register: www.sqetraining.com/api
Testing Under Pressure
Strategies to Succeed When Time Is Short

- Identify and focus on “what really matters”
- Listen to and learn from your key context drivers
- Create practical decision-making workflows
- Dynamically prioritize testing objectives and tasks
- Triage ruthlessly to deliver the most value with limited time
- Avoid wasteful re-work when implementing and executing tests
- Testing tactics that focus efforts when you have no time and limited resources

Test Teams and Testers Dealing with Severe Time Limits

Picture a cast-in-concrete delivery date looming on your project’s horizon. While you have precious little time remaining, the development team keeps delivering incomplete builds of less-than-stable code. Is this a “death march” project, or can the testing team actually do something useful—perhaps even save the day?

Based on successful testing experiences from outrageously turbulent projects, *Testing Under Pressure* reveals proven principles that you can immediately apply to your own testing world. Rather than wondering if the sky is falling, you’ll develop a set of practical, repeatable skills and tools to keep yourself and your team focused on what really matters most. Instead of a checklist of what to do next, you’ll have the knowledge and confidence to think on your feet and decide every week—and every day—the most important things to do next.

Real World Strategies

With real-world examples and lively group discussions you’ll learn ways to apply these practices in your project, your team’s development lifecycle, and your organization. If you are looking for effective testing strategies when time is running out, development is late, and change is rampant, this class is for you.

Who Should Attend

Test managers, test leads, and testers who operate in an environment in which projects have fixed release deadlines, priorities change constantly, or testing resources are scarce will benefit from this course. Project managers, QA managers, and development managers in these same circumstances will benefit from the approaches and skills developed in *Testing Under Pressure*.

Learn more and Register: www.sqetraining.com/vtup
3-Day Course Outline:

**Expanding Your View of Testing**
- Finding Obvious and Hidden Boundaries
- Analyzing Specifications and Requirements
- Wearing the Users’ Shoes
- Mining the Bug Database
- Uncovering Risks
- Modeling the System
- Following the Data
- Varying Existing Tests

**Reducing the Test Set**
- Equivalence
- Combination Testing
- Pair-wise Analysis
- Analyzing Risks
- Prioritizing
- Test Retirement

**Managing the Test Project**
- Bug Advocacy
- Test Strategies
- Estimating
- Negotiating
- Metrics and Reporting

**Documenting Tests**
- Test Documentation Requirements
- Checklists, Matrices, and Test Cases

**Test Automation**
- Success and Failure: A Case Study
- Introduction to Styles of Automation
- Bang-for-the-Buck Test Automation
- Integrating Automated and Manual Testing

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**Creative Software Testing**

Proven Testing Techniques for Fast-Paced Projects

- Discover how business and technical contexts impact testing
- Learn creative techniques to enhance the power of your tests
- Explore strategies for reducing the amount of test to a manageable level
- Get the methods designed to reduce the set of tests while reducing risk

**Practical Insight, Usable Techniques**

It seems there’s never enough time to do all the testing we’d like to do. The problem just gets worse when the development schedule slips, but the test schedule does not. At the same time, we worry that even if we could do all the testing we planned, we still will not find the serious bugs that might affect users.

To answer this universal problem, *Creative Software Testing* offers techniques for expanding our ideas of testing then demonstrates how to reduce all those ideas to a manageable set of tests.

Expanding ideas for testing makes it possible to define the information we would gather about the software under test if we had all the time and resources we would like. Reality dictates that we pick and choose tests, using our time wisely. But reduction strategies help us make these difficult choices in a methodical way.

With real-world stories and case studies, this pragmatic, interactive course offers immediately applicable insights and techniques. Classroom exercises give you an opportunity to use the skills you’re learning. The instructor also includes demonstrations of Windows-based test assistance tools.

**Who Should Attend**

Appropriate for novices and experienced testers alike, *Creative Software Testing* shows you how to be more creative in designing tests, negotiating the scope of testing, and finding the best use of the testing time you do have. Learn creative approaches for analyzing the software to be tested, imagining how customers might use it, examining how it might affect the rest of the system, and predicting what could go wrong in the process.

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**INSTRUCTOR SPOTLIGHT**

An experienced test consultant and presenter, Dawn Haynes is a highly regarded trainer of software testers. She blends experience and humor to provide testers of all levels with tools and techniques to help them generate new approaches to common and complex software testing problems. In addition to training, Dawn is particularly passionate about improving the state of performance testing across the industry. She has more than 20 years of experience supporting, administering, developing, and testing software and hardware systems—from small business operations to large corporate enterprises.

**Learn more and Register:** www.sqetraining.com/cst
Essential Test-Driven Development

Learn the history and value of Test-Driven Development (TDD)
Explore the five practices that comprise TDD
Understand the test-first mindset and use it as Just-in-Time problem analysis
Learn refactoring as Just-in-Time design
Practice adding characterization tests to legacy code
Learn about emergent design and simple design
Use mock objects to decouple difficult dependencies

Essential Test-Driven Development is a 3-day course for developers, providing hands-on experience with the techniques of Test-Driven Development (TDD). This course is designed for experienced developers who are comfortable with their programming language and the basics of object-oriented design. Attendees learn the techniques of test-first, refactoring, mock objects, and others. They learn how these techniques provide and maintain a very low defect-count, plus why TDD helps developers work fearlessly, swiftly, and comfortably on new features and bug-fixes. Attendees will also learn how to work on legacy code: building test-coverage for critical areas and protecting areas of the legacy system that do not yet require any alteration.

This set of practices for developers is at the heart of low-defect agile software development. These techniques allow incremental development and Emergent Design to flourish without degrading quality. This course also contains a significant section on the not-so-pleasant task of adding unit tests to legacy code. The course is currently offered in Java, Javascript, C#, VB .net, or C++.

Who Should Attend/Prerequisites
This is an intermediate to experienced level course intended for software developers. Attendees should have competence with either Java, JavaScript, VB.net, C++, or C# programming languages, a familiarity with basic object-oriented principles of design, and a basic familiarity with an agile framework such as Scrum or Kanban.

This course involves hands-on programming. Please bring a laptop with your IDE loaded. If you have any difficulty bringing a laptop, please let us know immediately.

Who Should Attend/Prerequisites
This is an intermediate to experienced level course intended for software developers. Attendees should have competence with either Java, JavaScript, VB.net, C++, or C# programming languages, a familiarity with basic object-oriented principles of design, and a basic familiarity with an agile framework such as Scrum or Kanban.

Rob Myers is principle instructor and coach at Agile for All. He has over 30 years experience with software development teams, and has been training and coaching organizations in Agile engineering practices since 1998. His courses blend fun, practical hands-on labs, “Training From the Back of the Room” learning techniques, and relevant first-person stories from both successful and not-so-successful Agile implementations. His clients include many start-ups as well as Fortune 100 multinationals. Rob is currently working on his first book, Essential Test-Driven Development.

Learn more and Register: www.sqetraining.com/tdd

INSTRUCTOR SPOTLIGHT

Rob Myers is principle instructor and coach at Agile for All. He has over 30 years experience with software development teams, and has been training and coaching organizations in Agile engineering practices since 1998. His courses blend fun, practical hands-on labs, “Training From the Back of the Room” learning techniques, and relevant first-person stories from both successful and not-so-successful Agile implementations. His clients include many start-ups as well as Fortune 100 multinationals. Rob is currently working on his first book, Essential Test-Driven Development.
Exploring Usability Testing
Effective Techniques for Integrating Usability into Development and Test

Dealing with User Experiences
If it is not enough to confirm software conforms to requirements and passes established acceptance tests. Successful software projects engage, entertain, and support the users’ experience. The goals vary from project to project, but no matter how robust and reliable your software is, if the user community does not embrace it, business can slip out of your hands.

- Learn how to elicit real usability requirements from users. Techniques such as story boarding and task analysis enable teams to identify system attributes and quality factors, enabling users to gracefully solve their problems with the software you are designing.
- Testing professionals, programmers, and users collaborate to blend the requirement, design, and test cycles into a tight feedback loop.
- Learn how to identify a small subset of functionality to test with a small selection of users to get high value at low costs.
- Usability testers can take advantage of naïve questions from novice users as well as the tunnel vision and bias of domain experts.

This course shares examples of usability testing for a variety of technologies including mobile and web based products.

Learn more and Register: www.sqetraining.com/eut
High Powered Test Design
A Visual Approach to Test Design

- Drive testing with powerful visual models
- Focus testing on what really matters
- Eliminate wasted effort and save time testing
- Improve communication and collaboration between testers, developers, and customers
- Understand how users really use your software to get their job done
- Quickly expose product weakness
- Apply visual test designs to any business, technical, or organizational context
- Create high value reusable design artifacts
- Learn flexible agile test design techniques which can be applied on the fly
- Design tests in any development or testing lifecycle model

Empower your testing team
Many testing organizations are in a rut. Some testers spend a lot of time completing templates generating repetitive ineffective tests while important bugs slip right by, then there is little time available to test the increasingly complex solutions being developed. Visual test design techniques enable testers to create powerful test cases with less effort. Visual test design is about focusing on what really matters to customers, developers, and all project stakeholders.

Visual Test Designs
The test design approaches covered include a blend of classical test design methods using applied discrete math, a smattering of statistics, and some experience-based software engineering techniques. Core to all of these methods is the creation of visual images used to represent and communicate testing focus.

The course starts with using mind maps to identify test variables, and then moves on to visual models used to isolate critical test values using domain analysis, equivalence partitioning, and boundary conditions. Storyboards are used to elicit and design usage scenario based tests. Control flow testing is used to isolate critical pathways to test in project workflows, data flows, and even source code. Business rules are tested using simple and complex multiple variable decision tables. Transactional and embedded systems are testing with a blend of state model and state table approaches. Interdependent multiple variable testing is approached from two perspectives using Pareto charts for identifying commonly used transaction pathways and then with pairwise combinations using orthogonal arrays. Lastly a look at how system block diagrams can be used to developed very powerful failure mode test designs.

High Value Methods Real World Examples
The instructor helps energize testers getting them out of their ruts, thinking outside the box, and designing valuable tests. Many real world case studies and fully worked out examples are provided to help you get stated right away. The instructor also shows how some simple tools can help generate powerful visual test designs (including some commercial, free and open source tools too).

Who Should Attend
This course is appropriate for anyone who works in software development who wants to get more valuable testing done effectively in less time. Test engineers, test managers, developers, QA engineers, and other software project team members would benefit from this course.

Learn more and Register: www.sqetraining.com/vmt
How to Break Software: Robustness Testing Unleashed

- Learn new ways to analyze software and systems to find critical bugs faster
- Add a variety of methods for evaluating software stability and resilience to your toolbox
- Experiment with turning random guessing into targeted “attacks” to increase efficiency
- Practice using techniques on real software to explore how and when to apply them
- Build a strategy in class and find real bugs to take back to your project team

Do you test features or look for bugs? Learn the difference.

This course addresses one of the most important questions in software testing: How will the system behave in production? Will it be stable under normal usage? Where are the weaknesses? When is it likely to fail? How might it fail? Most often test teams incorporate random negative testing to find robustness bugs, but a lot of those tests yield information only when they find a problem. Transforming negative tests into targeted attacks tells you something very valuable whether they “pass” or “fail”—allowing you to evaluate software’s strengths and weaknesses with the same tests.

How to Break Software: Robustness Testing Unleashed enables new and experienced testers to tune their existing software breaking skills into more powerful resources for the project team while examining the software targets more efficiently.

Incorporating Robustness Testing Efficiently and Effectively

It’s not enough to learn about new techniques if you aren’t able to apply them successfully on projects. Negative testing has a role to play on every project, but to what degree and for achieving what goals? During this course, various class activities and hands-on sessions will be used to explore and experiment with these techniques from all vantage points including requirements and software analysis, test planning, test design, test execution, results reporting, and bug advocacy.

How to Break Software: Robustness Testing Unleashed helps testers find new ways to engage development teams about building, testing, and deploying resilient and robust software. And when test teams can operate in this “trusted advisor” role, they are able to tune testing activities more effectively.

Who Should Attend

While primarily framed for testers and test leads of any experience level, anyone involved in software development who wants to understand more about delivering stable and robust software will benefit from this course. Basic knowledge of software operations is assumed, and some exposure to a programming or scripting language is helpful but not required.

Please note: A laptop is required for this course. Some applications should be installed or accessible via internet for hands-on sessions.

Learn more and Register: www.sqetraining.com/hbr
2-Day Course Outline:

Overview
Philosophy
Purpose of Unit Testing

Unit Testing in Different Development Lifecycle Models
Traditional
V and Waterfall
Spiral
Evolutionary
Agile
eXtreme Programming
SCRUM
Feature Based Development

Unit Testing Objectives
Failure modes
Quality factors
Implicit, Explicit, and Missing Requirements
Bug Fixing

Unit Testing Approaches
Testing Code coverage concepts
Test harness development
Top down examples
Bottom up examples
Tools to support unit testing
Testing third party components
Unit Testing of re-used code
Bug Taxonomy
Patterns and Clusters

Getting Things Done in Unit Testing
Workflow
Configuration Management
Software Build approaches
Change control
Bug tracking
Peer reviews

Organization Issues
Negotiating enough time to do the job right!
Teaching testing skills to developers
Personal Software Process

References and Resources

Implementing Task-Oriented Unit Testing
Skills to Create Deliverables That Work

Developers are charged with the challenge of developing software at lightning speed often using new and unreliable technologies. This course explores how developers can organize themselves to create deliverables that work. Developers do unit testing during the development phase—we look at tools and techniques used to implement and organize unit testing. The workshop also teaches the economic and business benefits of comprehensive unit testing!

You will review how development and testing teams can work together to promote and implement unit testing. And you will learn how to save your company money by finding and fixing bugs long before system testing!

You will review methods of performing some meaningful stress and performance testing as part of unit testing.

Benefits
After completing this workshop, you will know how to implement unit testing and establish a unit testing discipline in your development team.

Topics Covered
- When to do unit testing
- Unit test case design
- Unit test organization
- References and resources
- Defect isolation and analysis
- Bug taxonomy
- Bug patterns
- Bug isolation
- White box methods
- Black box methods
- API testing
- Performance testing
- Stress testing
- Personal Software Process (PSP) maturity
- Peer review technique

Who Should Attend
Anyone concerned with software testing including testers, test leads, developers, and developer leads.

INSTRUCTOR SPOTLIGHT

Robert Sabourin has more than 34 years of management experience leading teams of software development professionals. A well-respected member of the software engineering community, Robert has managed, trained, mentored, and coached thousands of top professionals in the field. He frequently speaks at conferences and writes on software engineering, SQA, testing, management, and internationalization. The author of I am a Bug!, the popular software testing children’s book, Robert is an adjunct professor of Software Engineering at McGill University.

Learn more and Register: www.sqetraining.com/ito
1-Day Course Outline:

Benefits of Automation
- Save time
- Leverage resources
- Increase coverage
- Reduce costs

Risks
- You don't have time
- You don't have resources
- You can't measure coverage
- You must incur costs
- Unrealistic expectations

Common Mistakes
- Undefined test process
- Unpredictable results
- Dynamic code
- Custom or closed objects
- Short useful life
- Insufficient time, resources
- Writing programs to test programs
- Volatile data
- Graphical output

Cost Components
- Acquisition
- Training
- Documentation
- Environment
- Development
- Maintenance
- Educate development, management

Why Implement a Framework?
- Provide overall structure for test library
- Ensure consistency
- Reduce amount of code to develop, maintain
- Maximize reusability
- Shield non-technical testers from code
- Enable automation using data

Elements of a Framework
- Shared common components
  - Setup
  - Drivers
  - Context management
  - Error handling
  - Recovery
  - Cleanup
  - Reports
  - Test case design
  - Code to data trade-offs

Alternate Approaches
- Record/replay
- Data-driven
- Action/keyword
- Screen/window
- Class library

Application Mapping
- Application component
- Classes
- Methods and properties
- Standard
- Custom
- Test suites
- Build verification
- Standards verification
- Regression
- System
- Acceptance

The Practical “How To’s” of Creating Test Cases
Whether you are only considering automation or have years of experience, this course can help you improve your chances for success. Take advantage of Linda Hayes’ 20 years of automation experience to learn how to use frameworks to accelerate your test automation effort, dramatically shorten the learning curve, allow non-technical analysts to develop and execute automated tests, and simplify test library management and maintenance.

Get the facts on what automation can—and can’t—do for you, and find out how to secure management commitment. Learn how to avoid the traps and pitfalls that doom projects, including unrealistic expectations. Understand when automation is appropriate and when it isn’t and how to maximize the right opportunities. Linda provides detailed, step-by-step instructions for selecting and implementing a framework and takes you on a guided tour of five different approaches—from beginner to advanced—with analyses of the advantages and disadvantages of each approach. Learn how to use these practical and proven approaches with any commercial or internally developed testing tool for Web, client/server, mainframe, and character-based applications. Linda provides real world examples, new knowledge, and skills you can use as the framework for a new automation project or to make an existing project more successful.

Who Should Attend
Anyone considering automation or seeking to improve the usability and maintaining of current automation efforts.

INSTRUCTOR SPOTLIGHT

Linda G. Hayes, as co-founder of two software test automation companies including AutoTester and Worksoft, helped pioneer structured software test automation. She is a frequent industry speaker, author and columnist for Stickyminds. Her article on integrating quality throughout the development cycle won the Most Significant Contribution of the Year award from the Quality Assurance Institute and was published by Auerbach in their Systems Development Handbook.

Learn more and Register: [www.sqetraining.com/taf](http://www.sqetraining.com/taf)
3-Day Course Outline:

Be Prepared—What You Need
- Bug tracking
- Test oracles
- Operational profiles
- Test environment

Testing Ideas—What to Test
- Usage scenarios and data
- Requirements and design documents
- Failure modes
- Capabilities and domains
- Quality factors
- Creative techniques

Exercise: Creative test idea generation

What Not to Test
- Consequences and benefits of skipping
- Consequence of implementing
- Refactoring tests
- Credibility of tests

Testing Triage
- Roles and responsibilities
- Triage concerns
- Triage through project lifecycle
- Adapting to project context for triage

Exercise: Testing triage practice session

Regression
- Did we really fix the bug?
- Did we accidentally break something?

Testing in the Development Lifecycle
- Requirements workflow
- Bug workflow
- Configuration management
- Iterative, agile, and RUP approaches

Measurement and Reporting
- When tests should be run again
- Elaboration states
- Metrics and coverage

Exercise: Interpreting real-world status reports

Session-Based Exploratory Testing
- Balancing scripted tests vs. exploration
- Exploratory testing sessions
- Test charters
- Testing notes
- Building the exploration map
- Accountability

Exercise: Hands-on exploratory testing session

Just Enough Test Automation

Real Techniques Proven in Real Projects
Just-In-Time Testing (JIT) approaches are successfully applied to many types of software projects—commercial off-the-shelf applications, agile and iterative development environments, mission-critical business systems, and just about any Web application. Real examples demonstrate how JIT testing either replaces or complements more traditional approaches. Examples are drawn from insurance, banking, telecommunications, medical, and other industries. The course is packed with interactive exercises in which students work together in small groups to apply JIT testing concepts.

Who Should Attend
This course is appropriate for anyone who works in fast-paced development environments, including test engineers, test managers, developers, QA engineers, and all software managers.

INSTRUCTOR SPOTLIGHT

Matta Saikali is the president and founder of Testrics Inc., a software testing company based in Montreal, Canada. Matta has more than 20 years experience in internationalization (i18n) and localization (l10n) testing, and his testing experience covers more than 30 languages, including Arabic, Farsi, etc. An invited speaker at many international conferences. Matta is an instructor for many i18n and l10n courses that deal with subjects tailored specifically for testing professionals.

Rob Sabourin is an additional instructor for this course.

Learn more and Register: www.sqetraining.com/jit
Leadership for Test Managers
Motivation, Productivity, Inspiration, and Job Satisfaction

- Encourage and support self-motivation within and outside your team
- Improve productivity and innovation with better leadership
- Inspire those around you to become their best
- Increase job satisfaction for your team and yourself

What is the difference between management and leadership? Are leaders born or made? If test managers can, in fact, develop leadership skills, how can you become a better—even a great—leader? These questions and others will be answered by seasoned instructors with a depth and breadth of experiences in developing and leading testing teams and providing consulting to companies around the world.

In this discussion-oriented workshop, you and your fellow students will explore what it means to be a leader. First, you’ll learn about the attributes of “natural” leaders and what it takes for managers to grow to become great leaders who empower their team and add significant value to their organization. Then, the class members will delve into the most pressing leadership issues and challenges that test managers face every day. You’ll begin to identify the leadership traits you already possess and learn specific things you, as a test manager or lead, can do to improve your leadership skills and help your team grow and mature.

The Approach
The class will begin with a brief discussion of leadership “theory”—common leadership traits, leadership style, developing trust, and leading by example. Led by your instructor, you and the other class members will explore situational leadership issues: how to gauge morale; the leader’s role as a coach, mentor, and trainer; how organizational structure and corporate culture affect leadership; leadership principles applied to software testing and development; the impact and importance of influential leaders; and more.

Your seasoned instructor encourages you to bring your most pressing people and organizational problems to examine during the class. Working together with your peers you will discover new approaches to try and new perspectives to look at these issues. In addition to learning what it takes to improve your personal leadership skills, you’ll be able to take back specific action items to help your team improve their performance and individuals increase their job satisfaction.

Who Should Attend
This course is appropriate for test managers, test leads, potential test leads and managers, and anyone who is a student of leadership.

INSTRUCTOR SPOTLIGHT
Michael Sowers, CIO and senior consultant at TechWell, has more than twenty-five years of practical experience as a global quality and test leader across multiple industries. He has led internationally distributed quality and test teams and held accountability for configuration management and release engineering functions. He has worked with companies such as Fidelity Investments, CA, PepsiCo, FedEx, Southwest Airlines, Wells Fargo, ADP, Lockheed, and others to improve software quality, reduce time to market and decrease costs. Michael has also mentored and coached senior software leaders, small teams, and direct contributors worldwide and has a passion for helping teams deliver software “faster, better, and cheaper.”

Learn more and Register: www.sqetraining.com/ltm
2-Day Course Outline:

Introduction
Where test design fits in the testing process
Elements of a good test case
Test oracles
Understanding the limits of test design and testing
Test case design trade-offs

Black-box Test Techniques
Understanding domain analysis
Domain analysis – advantages, issues and coverage
Domain based techniques
Equivalence Partitioning
Discovering and documenting partitions
Partitioning complex fields
Equivalence classes for multiple requirements

Exercise
Boundary value analysis
Analyzing and testing boundaries
Challenging boundary issues
Exercise
Multi-dimensional domains
Decision tables – rules and construction
Decision tables into test cases
Exercise
Pair Based Methods
Combinatorial analysis and orthogonal arrays
Using pair based methods, manual and automated
Exercise
State-transition diagrams and tables
Terminology and key concepts
Chow’s N-switch coverage rules
Designing tests from state diagrams and tables
Exercise

Experience Based Test Techniques
Error guessing
Checklists and Taxonomies
Attack-Based Testing
Exploratory testing
Defect-Based Test Design

Wrap-Up and Summary

Learning Options

Mastering Test Design
Techniques for Developing Focused Test Cases

- Learn functional, black-box test design techniques to find bugs faster
- Practice test design techniques to reinforce your new skills
- Examine experience-based testing approaches to replace ad hoc testing
- Find out when to use each test design technique for the best results

The Practical “How To’s” of Creating Test Cases
After the test plans are written, the test teams formed, and the tools selected, it’s time to develop test cases and start the testing. So, what test design techniques should you use? How do you decide what tests are most important? What does a good test case look like? How can you reduce the number of tests while increasing coverage? When and how should you use white-box testing to complement black-box techniques? How can you maximize the value of exploratory testing?

Mastering Test Design answers these tester questions and many more while helping test analysts develop their professional testing skills and expand their personal tester toolkit of techniques.

Hands-On Practice of Real-World Testing Techniques
In this hands-on workshop, you’ll learn about and practice the most important functional, black-box testing techniques and be on your way to becoming a master test designer. The course includes student exercises covering equivalence class partitioning, boundary value analysis, decision tables, state diagrams, pair-based testing, and more.

Mastering Test Design is a great opportunity to hone your test design skills, improve your effectiveness, and increase your professionalism as a test analyst. You will leave the class with a newfound confidence for designing great test cases that find important bugs sooner.

Who Should Attend
This course is appropriate for both novice and experienced software testers. Developers who are expected to create test cases will find this course extremely useful. Test and development managers also can benefit from this course. A background of basic development processes and test levels is helpful but not required.

INSTRUCTOR SPOTLIGHT
Claire Lohr has been a professional in the computer field for more than 30 years, with the last 15 years focused on software process improvement for companies including GTE, Motorola, Westinghouse, SAIC, Boeing, and Aetna. Claire currently provides training and consulting services for a wide variety of both government and commercial clients. Her certifications are CSQE, CSDP, and CTFL. Claire is an SEI CMM Software Capability Evaluator and a Lloyd’s Register ISO 9000 Lead Auditor.

Additional instructors for this course include Richard Bender, Dale Perry, Robert Sabourin, and Dawn Haynes.

Learn more and Register: www.sqetraining.com/mtd
Measurement and Metrics for Test Managers
What, When, Where, and How to Estimate and Measure within Testing

- Understand the test team’s and tester’s role in software estimation and measurement
- Develop the right measures for your project and organization
- Create a custom Test Metrics Dashboard
- Learn how to estimate in the face of uncertainty
- Avoid dysfunctional metrics for sustainable measurement programs

This course is two courses in one. The first half of the day will be spent discussing the test manager’s role in software metrics; the second portion of the class continues the discussion on metrics by focusing on estimation.

The Test Manager’s Role in Measurement
In many ways, the most important value of testing is providing timely and accurate information to project stakeholders. As a by-product of testing efforts, test managers—and lead testers—need to continually measure and report the status and quality of the product under development. They also need to measure test effectiveness as a guide for improvement. Test managers make and revise test effort estimates and help determine when to stop testing and release the product. These are all examples of test metrics. Because a key component of testing is to measure the quality of the software product, test managers and testers also collect data and report metrics related to the entire software development activity. During this course the instructor addresses common metrics—measures of product quality, defect removal efficiency, defect density, defect arrival rate, and testing status. Learn the guidelines for developing a test measurement program, rules of thumb for collecting data, and ways to avoid “metrics dysfunction.” Several metrics paradigms and the pros and cons of each will be discussed.

Estimation in Practice
Almost anyone who has ever attempted to develop an estimate about software realizes just how difficult the task can be. The number of factors that can affect the estimate is virtually without limit. The key to good estimates is to understand the main variables, compare them to known standards, and normalize the estimates based upon their differences. This is easy to say but difficult to accomplish because estimates are frequently required when very little is known about the project and what is known is constantly changing. Throw in a healthy dose of politics and a bit of wishful thinking, and estimation can become a nightmare for software practitioners—and testers.

Who Should Attend
This course provides a background in estimation for anyone who must estimate software development or testing efforts (and that should cover almost everyone!). Analysts, developers, leads, test managers, testers, and QA personnel can all benefit from this course.

Michael Sowers, CIO and senior consultant at TechWell, has more than twenty-five years of practical experience as a global quality and test leader across multiple industries. He has led internationally distributed quality and test teams and held accountability for configuration management and release engineering functions. He has worked with companies such as Fidelity Investments, CA, PepsiCo, FedEx, Southwest Airlines, Wells Fargo, ADP, Lockheed, and others to improve software quality, reduce time to market and decrease costs. Michael has also mentored and coached senior software leaders, small teams, and direct contributors worldwide and has a passion for helping teams deliver software “faster, better, and cheaper.”

Learn more and Register: www.sqetraining.com/tem
Planning, Architecting, and Implementing Test Automation

- Develop an integrated test automation plan and architecture specifically for your organization
- Explore proven steps for assessing your current test automation state and defining a future test automation roadmap and architecture
- Get access to templates and examples you can use to draft your own test automation plan
- Leave with a draft plan and architecture that you can begin to implement

Bonus: One hour of virtual consulting services with our expert test consultant is included with this course to help you customize your plan and architecture to fit your organization situation.

To automate our tests, we often use several tools that have been developed or acquired over time, often with little attention paid to an overall plan or architecture and no consideration for how to integrate those tools. As a result, productivity suffers and frustrations increase.

In this hands-on course, the consultant/instructor shares his experiences from multiple organizations creating an integrated test automation plan and developing a test automation architecture. With a focus on both the good (engaging the technical architecture team) and the bad (too much isolation between test automators and test designers) this course is well-suited for both large and small enterprises, enabling you to communicate the real challenges and potential benefits to your stakeholders.

While several test automation frameworks will be presented and discussed, this course focuses on helping you assess your current automation state, identify gaps, and develop an automation plan and integrated tool architecture. The consultant/instructor provides you with templates and resources to help you get started on your journey toward developing a more comprehensive strategy, plan, and integrated tool architecture. The goal is for you to be able to draft a plan specific to your organization so that as you take this course, you’re getting real work done in parallel with your learning.

Learn the approaches that ensure your current test tools—and new test tools you acquire or develop—will work well with existing testing and application lifecycle software. Explore approaches qualitatively and quantitatively measuring the value of automation.

At the end of this course you will have had the opportunity to:
- Document the current state of test automation in your organization
- Define a custom test automation plan and architecture to fit your situation
- Create an initial implementation plan
- Identify initial key measures
- Develop a metrics dashboard for tracking the value of test automation
- Lay out a future strategy and roadmap to get there

Consulting Bonus
As you develop your automation plan, take advantage of one hour of review and discussion with one of our test consultants/instructors to answer questions and finalize your plan.

Who Should Attend
This course assumes you have a foundational understanding of testing and the purpose of automation. This course will be beneficial to anyone who is accountable for assessing, planning, designing, and implementing an integrated set of technology (testing infrastructure) that supports development, testing, and deployment. The content is appropriate for test automation engineering roles, test manager roles, test lead roles, test architect roles, as well as developer roles.

Learn more and Register: www.sqetraining.com/paa

VIEW ELEARNING DEMO
Risk-Driven Software Testing

Understanding the Value of “Risk-Driven” Testing

- Develop dynamic test strategies to reduce product and project risk with effective testing
- Learn a flexible and adaptable approach for testing any software
- Discover the keys to risk-based test planning and how to establish realistic testing goals
- Identify, analyze, and prioritize test objectives to guide all testing activities
- Focus test designs on finding important bugs more quickly and with less effort
- Find out how to report testing results and use this information to improve your testing processes

A Risk-Driven Test Process for Any Software Development Lifecycle

Whether you are new to testing or looking for a better way to organize your test practices and processes, understanding risk is essential to successfully testing software in today’s ever-changing world. Your instructor describes a general risk-based framework—applicable to any development lifecycle model—to help you make critical testing decisions earlier and with more confidence.

The key is deciding how to focus your testing effort, what elements and areas to test, and how to organize test designs and documentation. Learn the fundamentals of risk identification, analysis, and the role testing plays in risk mitigation. Learn how to develop an inventory of test objectives to help prioritize your testing efforts and translate these objectives into a concrete strategy for designing and developing tests.

With a prioritized inventory and focused test design and architecture, you will be able to focus your test case creation on those areas essential to your stakeholders. Execution of the resulting tests and assessing results based on risk-based processes will provide a better understanding of both the effectiveness of your testing and the potential for failure in shipped software.

Take back a proven approach to organize your testing efforts and new ways to add more value to your project and organization.

Focuses on the Most Important Testing Issues

In a small-group class setting, your instructor, who is a seasoned testing expert, will help answer your tough testing questions and help you understand how to apply risk-driven testing to your specific situation. You’ll leave equipped with a practical and proven testing approach that you can adapt to your organization, development lifecycle, applications, and project for immediate benefit. As a tester, you’ll be equipped with the tools and skills to attack any testing project—no matter the context or scope.

Who Should Attend

The audience includes test professionals, test managers, project leaders, quality analysts, and software developers. No specific prerequisites are assumed. However, attendees are expected to have some software experience.

Learn more and Register: www.sqetraining.com/rdt

Course Accreditations:

To register, call 888.268.8770 or 904.278.0524 | www.sqetraining.com | For group pricing, email groups@sqetraining.com
3-Day Course Outline:

**Learning Options**

- 3-Day Course Outline:
  - **Testing and Quality**
    - Quality & Testing
    - Economics of Failure
    - Software Lifecycles
    - ISTQB Testing Principles
    - Testing Levels
  - **The Test Manager**
    - Leader
    - Communicator
    - Politician
    - Salesperson
    - Technician
    - Detective
  - **Test Teams**
    - Tester’s Concerns
    - Test Team Organizations
    - Characteristics of a Good Tester
    - Staff Development Techniques
    - Certifications
  - **Master Test Plan**
    - Details of the Master Test Plan
    - Why Planning is Not Successful
  - **Test Case Design**
    - Black Box Testing
    - Equivalence Class Testing
    - Boundary Value Testing
    - Decision Table-based Testing
    - State-Transition Diagram-based Testing
    - Exploratory Testing
  - **Execution Management**
    - Test Logs
    - Status Reports
    - Retrospectives
  - **Metrics**
    - Attributes of Good Measures
    - Software Measurement
    - Common and Uncommon Metrics
    - The Human Element
    - Measuring Testing Effectiveness
    - Establishing a Testing Dashboard
  - **Estimation**
    - Why Estimates are Inaccurate
    - Test Estimation Techniques
  - **Tools**
    - Tool Implementation Issues
    - Tool Categories
    - Manager’s Role in Tool Implementation

**Software Test Management, Planning, and Measurement**

- Discuss the importance of corporate culture and the economics of test and failure
- Learn proven test planning methods and techniques
- Create a customized Master Test Plan and Level-specific plans
- Explore the issues that affect the test strategy
- Discover a practical risk analysis technique to prioritize your tests
- Examine methods for measuring the test effectiveness of your organization
- Learn a set of estimating techniques to assist in your test planning

**The Appropriate Test Strategy is Key**

Test planning is essential to the success of any testing effort, but what really matters is the thought process used to create the test plan rather than the document itself. Communications and agreements reached during the creation of the test plan ultimately determine the success of the testing effort. This course focuses on how to achieve a consensus on important test strategy issues such as resource allocation, scheduling, risk prioritization, exit criteria, automation, etc.

**A Proven Approach to Measurement**

While good planning is vital, measuring our ability to execute those plans is equally important. This course presents the characteristics of good metrics, how to select the ones helpful for your project, and how to create a dashboard to track your execution of your plans. In addition, it presents a number of estimation techniques helpful in the planning process.

**Who Should Attend?**

This course is appropriate for test managers, test leads, experienced testers, and project managers who are concerned with developing a testing strategy for their organization. It is software methodology agnostic and focuses on the key thought processes necessary for planning, measuring, and estimating testing.

**INSTRUCTOR SPOTLIGHT**

Michael Sowers, CIO and senior consultant at TechWell, has more than twenty-five years of practical experience as a global quality and test leader across multiple industries. He has led internationally distributed quality and test teams and held accountability for configuration management and release engineering functions. He has worked with companies such as Fidelity Investments, CA, PepsiCo, FedEx, Southwest Airlines, Wells Fargo, ADP, Lockheed, and others to improve software quality, reduce time to market and decrease costs. Michael has also mentored and coached senior software leaders, small teams, and direct contributors worldwide and has a passion for helping teams deliver software “faster, better, and cheaper”.

Learn more and Register: www.sqetraining.com/stm

To register, call 888.268.8770 or 904.278.0524 | www.sqetraining.com | For group pricing, email groups@sqetraining.com
Testing with Use Cases
Using the Use Case Model in Test Analysis and Design

- Learn a flexible approach to early test design using use cases as a basis
- Understand the basics of the use case model
- Learn the strengths and limits of use cases from a testing perspective
- Learn how to assess specific use cases for correctness and completeness
- Learn how use cases become the basis of test analysis and test design
- Understanding the Use Case Model

The use case model is a very useful tool for gathering, defining, and documenting the functional requirements of a system or application. In many organizations, it has taken the place of the classic many hundred-page requirements document. As a tester, you need to understand the general characteristics of the use case model, its strengths and weaknesses, and, most importantly, how it is being used in the project on which you are working. Several different styles of use cases are used in system development, and you need to be knowledgeable about them.

Testing the Use Cases
As requirements, documented in a use case model, are being created, testers help ensure that the use case model is complete, correct, and consistent. Early discovery of defects in the model, and in specific use cases, will prevent defects from being introduced into the design and code.

Testing Based on Use Cases
Once use cases are tested, then the system or application is built from them. The use case model becomes the basis for functional testing. Testers analyze the details of each use case and create one or more test cases that will be used to verify that the design and code are correct.

Who Should Attend?
This course is appropriate for anyone involved in using the use case model for software development. Novice and experienced software testers—as well as developers, test and development managers, customers, and project managers—can benefit from this course. A background of basic development processes is helpful but not essential.

Learn more and Register: www.sqetraining.com/tuc
Fundamentals of Agile Certification—ICAgile
A Pragmatic Approach to Adopting Agile

- Explore agile software development methodologies and approaches
- Understand differences between agile and traditional methodologies
- Learn how agile practices and principles improve the software development process
- Discover the major steps required to successfully plan and execute an agile software project
- Explore the leading agile development best practices

Organizations today are seeking ways to improve the efficiency of their software development efforts while still meeting quality objectives. Competitive pressures and customer demands continue to reduce software product release schedules, driving organizations to seek fresh new approaches to building software. Agile software development methods are often cited as a way to accelerate software delivery and get more done with less. This course will teach you how to avoid the common mistakes of agile adopters and answer some of the familiar myths and misus.

Fundamentals of Agile Certification will present a roadmap for how to get started with agile along with practical advice. It will introduce you to agile software development concepts and teach you how to make them work. You will learn what agile is all about, why agile works, and how to effectively plan and develop software using agile principles. A running case study allows you to apply the techniques you are learning as you go through the course. Key concepts that will be introduced and discussed include:

- Managing requirements using agile
- Defining and estimating user stories
- Building a release plan
- Using Scrum-based project management
- Delivering software using extreme programming

Bring your specific issues and problems to the training course for discussion as well.

This class is a prerequisite course to any of the ICAgile Tracks, including Certification in Agile Testing.

Who Should Attend
The audience includes software developers, software test professionals, project managers, business analysts, product managers, and line or business owners. SQE Training recommends this class both as a prerequisite for those seeking ICAgile’s Agile Testing certifications and those practitioners who recognize the need to focus on “being” agile in addition to “doing” agile.

Course Completion and Certification
Upon completion of this course attendees will be certified by the International Consortium of Agile (ICAgile) and awarded the ICAgile Professional designation. Additionally, the certified attendees will be listed on the ICAgile website, indicating their Professional designation and that they have completed all the learning objectives associated with the Fundamentals of Agile track.

About the ICAgile
The International Consortium of Agile’s goal is to foster thinking and learning around agile methods, skills, and tools. The ICAgile, working with experts and organizations across agile development specialties, has captured specific learning objectives for the different agile development paths and put them on the learning roadmap.

For more information, visit www.icagile.com.
Fundamentals of DevOps Certification—ICAgile

- Explore the DevOps background, approach, and best practices
- Integrate test automation with DevOps
- Implement continuous testing
- Learn how DevOps practices and principles improve software quality and efficiency
- Understand the differences between DevOps and traditional operational methodologies
- Discover the major steps required to successfully implement delivery pipelines

Organizations today are seeking ways to improve the efficiency of both their software development efforts and operations while still meeting quality objectives. Competitive pressures and customer demands continue to reduce software product release schedules, driving the pursuit of faster software releases, which in turn requires even more efficient testing capabilities. Agile development adoption is driving the need for increased value delivery efficiency. In this performance driven environment, software development, testing, and operations must evolve to meet iteration and release delivery goals while continuing to meet organizational quality objectives.

DevOps is the combination of development, testing, and operations and includes continuous integration, automated testing, continuous delivery, and rapid deployment practices. Because DevOps practices require confidence that changes made to the code base will function as expected, automated testing is an essential ingredient that is integrated in the process in every step and relied upon for enforcement of quality gates and to ensure overall delivery quality. This course will teach you how to avoid the common mistakes of DevOps implementations and to leverage DevOps best practices including:

- Test automation
- Automate everything
- Continuous build and delivery
- Continuous improvement
- Frequent code commits
- Infrastructure as code
- Fix the build(!) Prioritization
- Repeatable, reliable processes
- Collaboration and communication
- Operations in devops

Upon completion of the course, students will be able to recognize positive and negative patterns of software build, test, and deployment in their organization that relate to DevOps. Key concepts that will be introduced and discussed include:

- Test strategy and implementation within a ci/cd context
- Automated quality gates
- Managing configuration
- Continuous integration and delivery
- Automated deployments
- Operations management of infrastructure and data
- Organizational impacts of devops implementation

Who Should Attend

This course is appropriate for experienced software test professionals, operations engineers, software developers, project managers, and business owners. No specific prerequisites are assumed; however, attendees are expected to have some experience with software builds, deployments, and automated testing.

Course Companions and Lab Extensions

Explore the four follow-on, companion courses gain hands-on experience with critical DevOps techniques:
- DevOps Test Integration Workshop: Automating your DevOps and Test Environment
- Docker Containers
- Get Hands-On with Puppet and Vagrant
- Implementing Pipeline as Code using Jenkins Pipeline

ATTEND IN CONJUNCTION WITH THESE CONFERENCES

Learn more and Register: www.sqetraining.com/fdo
Business Agility Foundations—ICAgile
A Pragmatic Approach to Adopting Agile

The trajectory of Agile methods continues upwards and outwards—not only into new organizations and industries but increasingly beyond the realm of technology. This is leading to a set of cascading challenges and opportunities that lie in the application of Agile values, principles, and practices to non-software domains.

Business agility can be defined as the realization of value across the enterprise by applying the principles and practices of Agile that have revolutionized the world of information technology and project management over the past 20 years. The roots of business agility can be traced even further to Japan in the post-World War II era with Toyota and Lean manufacturing and is also echoed in some of the most recent innovations in business such as design thinking and crowd-sourcing.

This workshop will explore a jargon-free framework based upon lean and agile methods that is easily grasped and applied in non-software development contexts. Examples of real-world applications in human resources, marketing, real estate, education, and more will be shared and discussed, and exercises will help participants plot out how these methods might be applied in their own personal contexts. Leave with tools and techniques for enabling and implementing business agility through the development of high performing teams, design thinking, experimentation, customer value discovery, and the acceleration of value through the entire value stream.

This class provides both the framework for understanding business agility as well as provides hands-on experience in many of the techniques used throughout the framework within the context of a complex scenario that echoes many of the factors that can be expected in today’s work environment. In addition, each participant will understand and internalize their role in the viability and success of business agility as individuals, as subject matter expertise workers and as leaders. Earn ICAgile’s ICP-BAF designation upon course completion.

Tools & Topics Explored
- Impact Mapping
- The Agile Kaleidoscope
- Journey Mapping
- Value Stream Mapping
- Customer Discovery
- Design Thinking
- Benefits-based HR
- PMO Leadership
- Outcome-based educational initiatives
- Employee engagement initiatives
- Measures of Success

Learning Objectives
- Awareness: The Need for Business Agility
- Business Agility: Drivers, Criticality, Values, Principles & Dimensions
- Case for Change: Empowering Teams
- Case for Change: Customer Value and Continuous Learning
- Action Plans/Toolkits for Accelerating Business Agility
- Compelling Vision, Focus, and Clarity of Purpose

Designing the Future
- Creating space for optimal engagement and value creation
- Developing a Growth Mindset
- Breaking Paradigms and Making Value Visible
- Relationship between complexity and Business Agility
- Recognizing and Managing Dilemmas, Paradoxes and Polarities
- Lean Systems Thinking
- Experimenting and Hypothesis Testing
- Lean Startup and Canvases
- Kanban Values and Systems
- Iterative Framework and Sampling of Practices

New Ways of Thinking
- High-Performance Questions: Ask vs. Tell

Design Thinking Approaches
- Awareness: The Need for Business Agility
- Business Agility: Drivers, Criticality, Values, Principles & Dimensions
- Case for Change: Empowering Teams
- Case for Change: Customer Value and Continuous Learning
- Action Plans/Toolkits for Accelerating Business Agility
- Compelling Vision, Focus, and Clarity of Purpose

Who Should Attend
Anyone who has the responsibility for delivering business outcomes within the organization and/or shaping organizational strategy in a changing environment. This is a non-IT based course, and all organizational roles and departments are invited to attend. From team members to leadership, everyone will benefit from this workshop.

Learn more and Register: [www.sqetraining.com/baf](http://www.sqetraining.com/baf)
Agile Tester Certification

Learn the fundamentals of agile development, the role of the tester in the agile team, and some agile testing practices. Explore the business and technology-facing tests agile projects demand and how agile testers can help the project succeed. Learn about the techniques of Test-Driven Development (TDD), Acceptance Test-Driven Development (ATDD), and Behavior-Driven Development (BDD). Learn technical and team skills testers need for success in the world of agile development.

Practice of Agile Testing Techniques
Explore agile testing processes in an interactive workshop setting. Examples are studied through a series of small group exercises and discussions.

Who Should Attend
This course is appropriate for both novice and experienced software testers. Developers expected to test within agile teams will find this course extremely useful. Test and development managers also will benefit from this course. A background of basic development and testing processes is helpful. All course delegates are expected to have experience in or knowledge of agile development fundamentals.

ISTQB® Certification
Are you looking for an internationally recognized certification in agile software testing? Delivered by top experts in the testing industry, Agile Tester Certification is an accredited training course to prepare you for the ISTQB® Foundation Level Agile Extension exam. Note: The ISTQB® Software Tester Certification—Foundation Level is a prerequisite for the ISTQB® Foundation Level Agile Extension. For more information, visit the ISTQB® Tester Extension Page or view the syllabus.

The ISTQB® Agile Tester Foundation Extension certification exam has an additional cost, which is not included in the course price.

ICAgile Certification
Successful attendees of our Agile Tester Certification course are awarded the ICAgile Certified Professional in Agile Testing (ICP-TST). Additionally, the certified attendees will be listed on the ICAgile website, indicating their designation. SQE Training recommends Fundamentals of Agile Certification—ICAgile as a prerequisite for those seeking ICAgile’s Agile Testing certifications.

ATTEND IN CONJUNCTION WITH THESE CONFERENCES

Agile Dev WEST
June 3–4, 2018
Las Vegas, NV

Agile Dev EAST
Nov. 4–5, 2018
Orlando, FL

AGILE USA
June 25–26, 2018
Orlando, FL

Learn more and Register: www.sqetraining.com/atc

To register, call 888.268.8770 or 904.278.0524 | www.sqetraining.com | For group pricing, email groups@sqetraining.com
Agile Test Automation—ICAgile
Successful Automation in an Agile Environment

- Discover how to implement test automation as stories are implemented
- Confidently deliver shippable product increments each sprint using automation
- Understand how to collaborate with business analysts, programmers, and customers to integrate automation into your team’s workflow
- Work without the need of separate, independent test automation teams
- Learn how agile teams can transition legacy automation to an agile framework
- Explore how complex non-functional testing can be automated in a sprint
- Discover how tools such as mind mappers, recorders, and note takers generate defensible evidence of regulatory compliant testing

Agile teams deliver potentially shippable software at the end of each iteration (one to four weeks), or even possibly every day. This goal can’t be achieved without automated tests, which many teams struggle with. This class will teach automation techniques to increase testing efficiency, including regression testing, story and feature testing, and enhancement of exploratory testing. Test Driven Development techniques, precise test and tool selection, appropriate automation design, and team collaboration can be combined to fully integrate testing into agile delivery teams and provide the efficiency necessary for project success.

Explore the many ways automation supports agile testing activities. Test automation purpose, theory, and principles are reviewed. We look at how test automation is implemented in diverse organizations. The course presents many types of automation illustrated with example test descriptions, source code samples, and example test scripts.

Examples of automated tests for Test Driven Development (TDD), Acceptance Test Driven Development (ATDD), and Behavior-Driven Development (BDD) will be given.

Who Should Attend
This course is for agile team members involved in testing, programming, business analysis, software construction, and deployment. Product owners, managers, and other development professions will gain important insights into the benefits and trade-offs related to agile test automation. No specific prerequisites are assumed, and any technical concepts will be explained; however, attendees are expected to have some software and agile knowledge or experience.

Course Completion and Certification
Upon completion of this course attendees will have met the requirements for the ICAgile Certified Professional in Test Automation (ICP-ATA) designation. SQE Training recommends Fundamentals of Agile Certification—ICAgile and Agile Tester Certification as a prerequisite for those seeking the ICP-ATA designation.

ATTEND IN CONJUNCTION WITH THESE CONFERENCES

- **Agile Dev WEST**
  - A TECHWELL EVENT
  - June 3–4, 2018
  - Las Vegas, NV

- **Agile Dev EAST**
  - A TECHWELL EVENT
  - Nov. 4–5, 2018
  - Orlando, FL

- **AGILE TESTING DAYS USA**
  - June 25–26, 2018
  - Orlando, FL

Learn more and Register: [www.sqetraining.com/atu](http://www.sqetraining.com/atu)
Certified Scrum Developer

3-Day Course Outline:

Scrum and Extreme Programming (XP) Overview
Review of Scrum principles followed by the study of XP, a highly disciplined style of software development with prescribed set of programming principles and practices, which is complementary to Scrum.

Architecture and Design Collaboration
Study of architecture and design, focusing primarily on the principles that better enable testability and ease refactoring:
- Standing up a typical Agile Development environment
- Principles of architecture and design practices on an Agile team
- Principles that enable testability and ease refactoring
- Emergent Architecture

Collaboration
An in-depth look at the way Agile teams work together. This includes, but is not limited to, the following concepts:
- Working together as one team
- Pair programming
- Test automation through collaboration

Test Driven Development & Refactoring
Study of test-first development, including but not limited to the following concepts:
- Test driven development (TDD) as a design approach
- Red-green-refactor cycle
- Unit testing principles and practices
- What makes good tests/measuring test effectiveness
- Isolation tests using Mocks and Stubs

Continuous Integration
An introduction to the key practices of continuous integration, including but not limited to the following:
- Single command build
- Creating builds that are automated, self-testing, and fast
- The importance of a single source repository
- Increasing visibility & automating deployment

Automated Testing
Study of agile testing principles and an introduction to the practice of multi-level automated testing, that includes:
- Automated unit/integration testing
- Automated acceptance testing
- Acceptance Test Driven Development (ATDD)

Features
- Facilitated by thought leaders with a decade or more of real world Agile experience
- Real world content, not ivory-tower theory
- Interactive exercises that engage the attendees
- Provides skills to create world class systems

Who Should Attend
Developers, testers, architects and technical leads who have a basic understanding of good programming practices and want to take their skills to the next level.

Attendees are required to bring their own laptop to be able to complete the exercises.

ATTEND IN CONJUNCTION WITH THESE CONFERENCES

Agile Dev WEST June 3–4, 2018
Las Vegas, NV

INSTRUCTOR SPOTLIGHT

Raj Indugula has more than 17 years of experience in the crafting of enterprise software systems using a broad range of technologies for a diverse client sector that includes trading and financial institutions, education, telecom and the Department of Defense. He has successfully led and managed the implementation of multiple highly-visible, mission-critical software systems through the pragmatic adoption of Scrum and XP practices such as incremental software delivery, customer collaboration, transparency, TDD, and continuous integration, as well as provided thought leadership to organizations on acceptance test automation. A Sun-Certified Java Developer and a Certified Scrum Master, Raj hold an M.S. in Computer Science and has recently been a guest speaker at George Mason University.

Learn more and Register: www.sqetraining.com/csd
Certified Scrum Product Owner
Aligning Product Management with Agile Delivery

- Articulating clear visions with measurable business objectives—Practice Lean Startup techniques such as the lean canvas
- Describing and prioritizing stakeholders—Practice techniques from agile user-experienced design such as personas and customer development methods from the Lean Startup
- Expressing requirements as testable outcomes—Practice story writing and acceptance test driven methods to objectively express requirements and focus development efforts on achieving business results
- Prioritizing new product development, maintenance, and non-software work—Learn to prioritize by product, customer and market risk, cost of delay, and more
- Planning releases and sprints—Practice advanced techniques like story mapping and visual management systems for programs
- Tracking and reporting outcomes—Use quantitative techniques from lean and Lean Startup

Eliminate Barriers to Development Success
Scrum is an agile development method that removes barriers between your customers and the development team. Using the Scrum approach, your organization will more easily meet market and customer needs while attaining its ROI objectives for your project. As a trained Product Owner you will help improve the quality of life and productivity for all members of the business and development team. Implementing Scrum boosts productivity, unleashes creativity, provides “quick wins” for your team, and improves the quality of your software.

Learn the Essential Concepts and Tools of Effective Agile Product Ownership
This two-day Certified Scrum Product Owner Certification course provides the jumping off point for you to take on the hardest role in Scrum, being a Product Owner. Being an effective Product Owner is difficult, but, if executed well, it can be incredibly rewarding as speed to market and value will grow substantially. After completion of the course you are registered as a Certified Scrum Product Owner (CSPO) with a two-year membership in the Scrum Alliance® (www.scrumalliance.org) where valuable materials and information are available exclusively to CSPOs.

You will learn essential concepts and tools of Scrum, as well as supporting methods like Kanban and Lean Startup techniques. The focus on this course is providing real-world techniques that have been proven effective by product owners in hundreds of actual projects. At the strategic level, you will learn how to articulate a clear vision with measurable business objectives, create forward looking roadmaps, and sequence features to market to maximize ROI within the context of product objectives. At the tactical level, you will learn how to effectively groom the product backlog, plan releases and sprints, work with Scrum teams to realize polished products, and track and report progress.

This course is taught by leading agile practitioners with decades of real-world industry experience at companies ranging from small businesses to the Fortune 100. Exercises, demonstrations, facilitated discussions, case studies, tool and template examples, and more are interwoven throughout to illustrate the principles being taught in a comprehensive fashion interactively tailored to the class’s needs, based on real world experience, not ivory-tower theory.

Who Should Attend
Business customers, product managers, and line managers aiming to maximize the benefit that they receive from their agile projects by learning how to better prioritize and interface with agile teams should attend.

Course Completion and Certification
Successful attendees receive Scrum training materials, listing as Certified Product Owners on the Scrum Alliance® website, and a 12-month membership in the Scrum Alliance®. In addition, the class is eligible for 16 PDU credits with the Project Management Institute (PMI).

Bonus Offerings
- 16 PMI PDUs and/or Scrum Alliance® SEUs of continuing education credits for qualifying individuals
- Membership in Scrum Alliance® ($50 value)

Course Accreditations
Learn more and Register: www.sqetraining.com/cpo

To register, call 888.268.8770 or 904.278.0524 | www.sqetraining.com | For group pricing, email groups@sqetraining.com
Certified ScrumMaster® Training

- Be a servant leader
- Build a roadmap of success for adopting agile
- Build a cohesive agile team via appropriate team structure, workplace design, and team roles
- Plan and execute short development iterations to get to market early and often
- Quickly change direction in response to competitive pressures and marketplace changes
- Adapt via an inspect-and-adapt feedback cycle, project retrospectives, and plus-delta feedback
- Break down the barriers between development and the business
- Focus on customer satisfaction and interaction instead of plans and artifacts
- Use progressive elaboration via rolling-wave planning instead of single-pass waterfall delivery
- Experience and practice how to be a ScrumMaster within a simulated project
- Make the paradigm shift from top down to distributed control

This two-day Certified ScrumMaster® Training course prepares you both to gain your ScrumMaster certification and more importantly to utilize it in complex situations and projects. Upon completion, you’ll be eligible to take an exam allowing you to become a Certified ScrumMaster® (CSM), which includes a two-year membership in the Scrum Alliance®, where valuable ScrumMaster materials and information are available exclusively to CSMS. We’ll cover the essential concepts and tools of Scrum, highlighting differences between agile processes and traditional “waterfall” methodologies and providing a roadmap for adopting Agile. We’ll look into the theoretical basis of Scrum including Lean and the quality movement. We’ll also cover newer advances such as Kanban, and learn how to apply Scrum to program and portfolio management at scale.

You’ll learn how to lead development teams towards agile operations by managing product backlogs, planning releases and sprints, tracking and reporting progress, and conducting retrospectives.

This course is taught by industry leaders with decades of real-world industry experience rolling out Scrum at companies ranging from small business to the Fortune 100. Exercises, case studies, and examples are interwoven throughout the course to illustrate the principles being taught. We’ll review personal case studies of how the trainer helped companies use Scrum on projects and organizations ranging from 5 to 5,000 people, and participants will have the chance to raise and discuss their own situations, providing one of the most targeted training experiences available.

Who Should Attend
Product line managers, project managers, developers, testers, business analysts, and anyone interested in learning more about Scrum and agile methods

Course Completion and Certification
Successful attendees receive Scrum training materials, a 12-month membership in the Scrum Alliance®, and are eligible to take an exam, which will qualify them as a Certified ScrumMaster® (CSM) upon successful completion. In addition, this course will lend 16 PMI PDUs and 16 SEUs (Scrum Education Units).

Bonus Offerings
- 16 PMI PDUs and/or Scrum Alliance® SEUs of continuing education credits for qualifying individuals
- Membership in Scrum Alliance® ($50 value)
- Managing Agile Projects book discount

INSTRUCTOR SPOTLIGHT

Bob Payne is a leading practitioner and thought leader in the use of Lean and Agile methods for organizational transformation. As an early adopter of Extreme Programming (XP), Scrum and most recently SAFe, he has worked exclusively as an Lean+Agile transformation leader since 1999. He brings a pragmatic approach to the use of best fit approaches from across the spectrum of Lean+Agile practices and processes. He believes that the most important piece of any transformation is to build the skills in the teams to build and continuously improve the process. He is the founder and Chair of the AgileDC conference and is involved and speaks in industry conferences worldwide. As host of the Agile Toolkit podcast Bob has produced over 170 podcasts, recording a variety of industry leaders and Agile practitioners. With years of Lean+Agile experience, a MSEE in Computer Architectures for Artificial Intelligence and having grown up working in his family restaurant, he brings a unique blend of technical excellence and customer service to bear on his projects and training.

Arlen Bankston and Sanjiv Augustine are additional instructors for this course.

Learn more and Register: www.sqetraining.com/smw
Advanced ScrumMaster® Training
The Next Step for Scrum Alliance® ScrumMasters

State of Lean & Agile
Facilitation: Done Well and with Agility
Coaching Individuals: Nurturing Personal Agility
Coaching Teams: Nurturing Group Agility
Assessing the Team
Coaching the Agile Organization: Beyond the Team
Continuous Improvement
Scaling Scrum
Developing Yourself: Honing Your ScrumMastering Skills
Exercises and Games for Local & Remote Teams
Interactive Facilitation Techniques

2-Day Course Outline:

- Deal with common agile problems
- Dive into team and relationship dynamics
- Learn how to keep things fresh for your teams
- Help your teams understand how to deal with different people and motivations
- Walk away with a ready-to-use toolkit of coaching games, exercises, and tools

Advanced ScrumMaster Training gives you a practical set of tools, feedback on your communication and facilitation skills, and techniques for guiding and evolving your Agile teams. You will be practicing a host of advanced personal and group facilitation skills and exercises that will reinvigorate your leadership approach and take your team’s performance to the next level.

This highly interactive course applies a unique blend of proven agile coaching techniques, applied improvisation, and other experiential techniques to improve your skills in mentoring, teaching, and facilitating in a coach’s many stances while remaining flexible and confident.

You will learn to:
- Facilitate dialogue between the Product Owner, team members, customers, stakeholders, and executives.
- Respond confidently when encountering resistance to change, lack of engagement, low motivation, and unavailability of key people.
- Help your company adopt Scrum and support executives committed to Agile values.
- Remove impediments that prevent long-term, deep adoption of Scrum and Agile practices by all parts of the business.
- Explain the value of Scrum and Agile processes to skeptics.
- Increase developer engagement to encourage greater accountability, commitment, and buy-in.
- Extend the impact of Scrum throughout the organization.
- Scale Scrum and Agile beyond a single team.

Who Should Attend
Scrum Masters, Team Leads, Development Managers, Delivery Managers, Project Managers, Agile Coaches, and more.

Benefits of A-CSM
- A focus on implementation: The A-CSM program is designed to build on your foundational knowledge with enhanced skills for the implementation of Scrum and Agile techniques within your company and teams.
- Distinguish yourself in the global marketplace: The new A-CSM certification provides an opportunity to take the next step and stand out among the global Scrum community.
- Stand out in your industry: As a member of the Scrum Alliance globally recognized community, you show your employer (or potential employer) your potential as a highly valued professional.

Advanced ScrumMaster Path to CSP Certification
This certified educational offering is on the Path to CSP®, providing professionals with a set of techniques and skills that go beyond the basics and mechanics of Scrum, expanding into interaction, facilitation, coaching, and team dynamics.

Learn more and Register: www.sqetraining.com/asm
Leading SAFe–SAFe Agilist Certification Training

- Lead the application of Lean thinking and Agile and product development flow principles to improve productivity, employee engagement, time to market, and quality
- Apply the Scaled Agile Framework based on lecture, real-world examples, and insights by Scaled Agile experts
- Understand the skills necessary for an enterprise transformation based on the information and examples presented and additional recommended readings and resources
- Gain insight into the leadership skill most effective in unlocking the intrinsic motivation of software development knowledge workers, and begin applying them in your context

SAFe is quickly becoming a popular framework to apply Lean, Agile, and product development flow principles to improve productivity, employee engagement, time to market, and quality. Larger organizations use the framework to implement Agile at scale, aligning teams with value streams and establishing a program-level cadence for releases. The Agile Release Train (ART) helps synchronize teams to ensure that the organization is consistently releasing valuable product to market.

This two-day course will prepare leaders to leverage the Scaled Agile Framework in an enterprise Agile transformation. SAFe synchronizes alignment, collaboration, and delivery from Portfolio to Program to Team levels. Participants will develop an understanding of how the principles and practices of the framework support Lean, Agile, the Agile Release Train (ART), portfolio management, Agile architecture, and scaling Agile processes and practices across the enterprise. Leading SAFe–SAFe Agilist Certification Training is a prerequisite for SAFe Agilist (SA) Certification.

Prerequisites

While no prerequisites are required to attend the class, the Scaled Agilist Certification prerequisites are as follows:

- 5+ years of experience in software development, testing, business analysis, product or project management
- Experience in Scrum Process
- Attendance of the 2-day Leading SAFe–SAFe Agilist Certification Training course
- Pass the SA exam (retakes are $50 and can be taken 90 days or more after the previous exam)

Who Should Attend

Executives, managers, and Agile change agents leading the effort to scale Agile and align value-creating efforts across teams.

Bonus Offering

- 16 PMI PDUs and/or Scrum Alliance® SEUs of continuing education credits for qualifying individuals

INSTRUCTOR SPOTLIGHT

Roland Cuellar has focused exclusively on agile software development and lean business process improvement for the last 12 years. During that time, Roland has worked with a number of business and governmental clients on enterprise agile adoption. Roland has spoken at numerous conferences and has published a number of articles on the subjects of agile, portfolio management, quality, and kanban. Roland has a BS in Computer Science from the University of Houston and an MBA from UCLA. He is also a Certified ScrumMaster, Certified Scrum Product Owner, Lean-Six-Sigma Green Belt, and SAFe Program Consultant (SPC).

Bob Payne is an additional instructor for this course.

Course Accreditations

Learn more and Register: www.sqetraining.com/saf
Certified Agile Leadership
Accredited Training for the Scrum Alliance® Certified Agile Leadership I Designation

- Explore leadership in an agile context
- Discover agile approaches to change program goals
- Develop agile leadership competency and maturity
- Balance education, practice, and peer collaboration

When leaders enable agile methods, the resulting speed, flexibility, and experimental culture creates a competitive advantage. Open your organization to creativity and innovation while reducing risk and blame. Training your teams in agile alone will not spur an organizational shift. As a leader, you can guide transformation by shaping the culture and vision of your company. Review real life case studies, access custom tools, and be immersed in interactive learning. Explore enterprise-focused lean and agile methods from the executive perspective. Learning alongside other leaders, craft your agile leadership strategy to deliver faster results, higher quality, and unparalleled innovation.

In an agile organization, leaders must shift from directive approaches to ones that enable autonomy, mastery, and purpose within the ranks of their employees. In Certified Agile Leadership, participants assess the current state of agility within their organizations and discuss the unique requirements of the agile leader’s role. During the workshop, agile leaders develop short-term plans to drive better application of the agile mindset and techniques. To this end, the workshop studies three key leadership factors: people operations, self-management and personal presence. Earn the Scrum Alliance® Certified Agile Leadership 1 credential upon completion of this workshop.

Certified Agile Leadership is a two-day workshop focused on the role, responsibilities, and reasons for being an agile leader. A highly interactive program is aimed at helping participants create personalized plans that can be put directly into action following the workshop. A rich combination of discussions with peers, lecture, movies, micro-exercises, and more ensure that participants are both engaged and entertained.

An agile leader operates effectively amid uncertainty, complexity, and rapid change. They are knowledgeable about agile values, approaches, and practices. And they strive to find creative solutions through increased self-awareness, a growth mindset, and team engagement. The Scrum Alliance Certified Agile Leadership (CAL) program includes introductory education to bring awareness of the focus and journey of the agile leader as well as an advanced path of validated learning and practice for the leader to continue the learning journey.

This course is taught by actual executives who have personally been at the forefront of numerous agile transformations and are recognized thought leaders in the agile space for over fifteen years. Personal experience in both public and commercial organizations with the full gamut of agile techniques, including Scrum, Kanban, scaling methods, and DevOps, helps instructors connect with the real-world needs of participants, instead of just conveying theory. Learn what has and hasn’t worked in real world whole-company transformations, encompassing not just software development but also impacts to HR, finance, marketing, and more.

Who Should Attend
Executives, middle management, and other leaders with organizational influence; Leaders who support, lead, or interact with agile teams; Any leader sponsoring, requesting, or involved with an agile adoption within their organization.

Course Completion and Certification
Successful attendees receive Scrum Alliance CAL 1 Credential and a 2-year membership in the Scrum Alliance. In addition, the class is eligible for 16 PDU credits with the Project Management Institute (PMI).

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<thead>
<tr>
<th>INSTRUCTOR SPOTLIGHT</th>
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<tr>
<td><strong>Sanjiv Augustine</strong>  is an entrepreneur, industry-leading agile and lean expert, author, speaker, management consultant, and trainer. With 25 years in the industry, Sanjiv has served as a trusted advisor over the past 15 years to executives and management at leading firms including: Capital One, The Capital Group, CNBC, Comcast, Freddie Mac, Fannie Mae, General Dynamics, HCA Healthcare, The Motley Fool, National Geographic, Nationwide Insurance, Walmart, and Samsung. Sanjiv is the author of the book Managing Agile Projects (Prentice Hall 2005) and several publications including “Transitioning to Agile Project Management” and “The Lean-Agile PMO: Using Lean Thinking to Accelerate Agile Project Delivery.” He is the Chair of the Agile Alliance’s Agile Executive Forum and the founder and moderator of the Lean Startup in the Enterprise Meetup. Sanjiv was also a founder and advisory board member of the Agile Leadership Network (ALN) and a founder member of the Project Management Institute’s Agile Community of Practice.</td>
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Learn more and Register: www.sqetraining.com/cal
Certified Professional in Agile Project Management—ICAgile

This two-day course focuses on core components of the agile project manager role and how that differs and is distinct from the traditional project manager role. It equips the learner with strategies and techniques for successful lean and agile project implementation.

Learn how to instill a servant leadership mindset in your team and understand how this approach is critical to empowering agile teams to produce great results. You will practice the role of the agile project manager and as a facilitator of agile practices know how to work towards achieving your desired outcomes. Take a more in-depth look at the fundamental agile concepts of adaptive planning, customer collaboration, and value-driven delivery in dynamic and sometimes highly constrained environments.

In addition, the learning objectives of this course address how agile approaches handle standard project management processes, such as metrics and reporting.

Who Should Attend
Product and line managers, project managers, developers, testers, business analysts, and anyone interested in learning more about agile methods.

Course Completion and Certification
Successful attendees of our Certified Professional in Agile Project Management—ICAgile course can be awarded the ICP Agile Project Management (ICP-APM). Additionally, the certified attendees will be listed on the ICAgile website, indicating their designation. SQE Training recommends Fundamentals of Agile Certification—ICAgile as a prerequisite for those seeking the ICP-ATA designation.

Learn more and Register: www.sqetraining.com/cpm
Team Kanban Practitioner

- Design and implement a Team Kanban board
- Learn the basics of visualizing different types of work and associated risk
- Understand the core elements of the Kanban Method such as Work in Progress limits
- Learn how to proceed to the next level with Kanban

The Team Kanban Practitioner class teaches the basics of the Kanban Method and serves as the entry level and starting point to an “alternative path to agility.” It covers the elements of a task-level Kanban System for a single team or individual.

Experience the Kanban Method

Experience the Kanban Method in an informal and interactive workshop setting. Leave with practical hands-on experience with the Kanban Method.

Who Should Attend?

This course is appropriate for novice Kanban practitioners and teams transitioning to Agile approaches. Course participants are encouraged to have read the book Kanban by David J. Anderson or Kanban from the Inside by Mike Burrows.

Lean Kanban University® Certification

Are you looking for an internationally recognized certification in the Kanban Method? Delivered by top experts in the industry, this course meets the requirement for the Team Kanban Practitioner (TKP) status designation indicating completion of training in visual management for improved collaboration and Team Kanban concepts based on the Kanban Method.

Learn more and Register: www.sqetraining.com/tkp
2-Day Course Outline:

Understanding Kanban and the Kanban Method
- Essential concepts and system elements
- Kanban as a change management method
- Service delivery principles
- Change management principles and practices

Interactive Kanban Simulation
- Kanban Systems
- Using WIP limits
- Concept of Pull
- Improving agility using commitment points
- Option handling
- On-demand replenishment and delivery

Measuring Performance
- System Lead Time
- Customer Lead Time
- Charting and using Lead Time data
- Flow efficiency
- Commitment points

IT Operations Case Study
- Kanban at Microsoft: From Worst to First in 9 months

Kanban System Design
- Systems Thinking Approach to Implementing Kanban (STATIK)
- What is the problem you are trying to solve?
- Analysis of customer sources and work item types
- Demand vs capability
- Identifying patterns of the work
- Modeling activity workflows
- Creating classes of service and cadences

Visual Design Techniques
- Ticket design
- Modeling concurrent activities
- Handling specialization
- Dependencies
- Board design elements

Wrap-Up

Learn to control Work in Progress, from push to pull
Benefit from visualizing work
Discover how to measure and manage workflow
Learn how to make policies explicit within Kanban
Find out how to manage change and collaborative improvement
Learn the steps needed to start and evolve an effective Kanban system for one or more teams

Participants will learn how to design a complete Kanban system and initiate change with Kanban. You will learn the key concepts of flow, pull, and collaborative improvement. This course utilizes interactive exercises organized in small groups, games, classroom teaching, and discussion to engage participants and solidify practical learning.

Who Should Attend?
- Teams, managers, team leaders, coaches, and consultants who wish to “get things done” with improved quality, speed, and predictability.
- Leaders, managers, and team members who want to focus on what to work on now, what to leave until later, and what to discard altogether.
- Those who want to transform the many elements of their work into a manageable system with the agility to accommodate changing customer demands.

Prerequisites
- This course is appropriate for both novice and experienced Kanban practitioners. Course participants are encouraged to have read the book Kanban by David J. Anderson or Kanban from the Inside by Mike Burrows. Prior attendance at a Team Kanban Practitioner 1-day course is recommended but not required.

Lean Kanban University® Certification
- Are you looking for an internationally recognized certification in the Kanban Method? Delivered by experts accredited by Lean Kanban University, this course satisfies one requirement toward the Kanban Management Professional (KMP) designation. The KMP II: Kanban Management Professional class will complete the KMP status requirement.

Learn more and Register: www.sqetraining.com/ksd

To register, call 888.268.8770 or 904.278.0524 | www.sqetraining.com | For group pricing, email groups@sqetraining.com
Learning Options

2-Day Course Outline:

Evolutionary Change Management
- Traditional vs evolutionary change
- Psychology of change
- Handling resistance without force

Dealing with Resistance to WIP Limits
- Emotional vs logical resistance to change

Types of Kanban Systems
- 5 forms of Proto-Kanban
- Batched systems
- Team Kanban: separate and aggregated
- Differences between Proto-Kanban and pull systems
- Benefits of Proto-Kanban

Scrum Case Study
- Motivation for moving from Scrum to Proto-Kanban
- Systems thinking approach
- Qualitative cost of delay
- Flexible planning through Replenishment Meetings
- Using classes of service
- Establishing service level agreements
- Types of commitment
- Applying Little’s Law to queue size
- Resolving disruptions to flow, including WIP limits
- Evolving a kanban system design

Kanban System Design (Review)
- Using WIP limits
- Concept of Pull
- Improving agility using commitment points
- Option handling
- On-demand replenishment and delivery

Measuring Performance
- System Lead Time
- Customer Lead Time
- Charting and using Lead Time data
- Flow efficiency

Service Orientation for Pull Systems
- Service Delivery Principles and Practices for pull systems
- Developing a service orientation rather than a team orientation
- Service-oriented Kanban board design
- Appropriateness of Kanban system types
- enterprise-wide
- Kanban Litmus Test

Scaling Kanban
- Review of STATIK method
- Scaling principles
- Kanban Cadences: Information flow across the enterprise:
  - Replenishment meeting, Kanban meeting, Delivery Planning meeting
  - Improvement meetings: Service Delivery Review, Operations Review, Risk Review

Upstream Kanban
- Minimum and maximum WIP
- Upstream discovery vs downstream delivery
- Roles to manage upstream and downstream Kanban

Improving Performance and Predictability
- Metrics to identify delay
- Capacity allocation and other ways to improve predictability
- Identifying and mitigating factors that cause delay:
  - Bottlenecks
  - Variability
  - Economic cost

Wrap-Up
- Kanban as an evolutionary change method

Kanban Management Professional

- Determine what type of Kanban initiative is appropriate for your organization
- Learn to manage and evolve your Kanban initiative
- Learn how to improve agility
- Planning, implementing, and leading multiple Kanban Teams
- The roles, measures, and policies of Kanban

This class focuses on the daily operation and ongoing improvement of a Kanban system. You will consider what type of Kanban initiative is most appropriate for your organization and how to manage and evolve it over time. Learn how to improve agility and have greater predictability. The class also covers recommended meetings, roles, metrics, and setting policy.

Who Should Attend?
Those who have been running a Kanban initiative and are ready for a larger, more efficient system that is data-driven. Managers and team members who want to focus on what to work on now, what to leave until later, and what to discard altogether. Those who want to transform the many elements of their work into a manageable system with the agility to accommodate changing customer demands. Also, leaders, managers, coaches, and consultants who want an understanding of advanced techniques for improvement and expansion.

Prerequisites
This course is appropriate for experienced Kanban practitioners. Course participants are encouraged to have read the book Kanban by David J. Anderson or Kanban from the Inside by Mike Burrows. Prior attendance at the Kanban System Design 2-day course is recommended but not required.

Lean Kanban University® Certification
Are you looking for an internationally recognized certification in the Kanban Method? Delivered by experts accredited by Lean Kanban University, this course satisfies one requirement toward the Kanban Management Professional (KMP) designation. This course plus Kanban System Design class will complete the KMP status requirement.

Learn more and Register: www.sqetraining.com/kmp

To register, call 888.268.8770 or 904.278.0524 | www.sqetraining.com | For group pricing, email groups@sqetraining.com
Test Improvement for Agile
How to Achieve Better Testing in Agile Environments by Using the TI4Agile Model

- Learn how to advance towards better agile testing
- Recognize agile testing challenges and learn how to address them
- Explore the twelve important areas for agile test improvement
- Avoid agile testing pitfalls

Learn How to Transition Towards Better Agile Testing
Many organizations are, to a certain extent, working agile or are transitioning to agile. To obtain success, testing needs to change along with the development process. TI4Agile focuses on test processes, as well as team and people aspects, and the embedding of testing in the organization. Like an agile team, the approach is multi-disciplined and addresses user stories, continuous integration, and test driven development. TI4Agile will provide you with improvement suggestions on testing and other parts of the development and business processes. Explore the key areas and learn how to use these for adequate improvements. Take back a step-by-step roadmap for better testing in agile environments from this interactive course. TI4Agile uses Scrum practices to incorporate the improvements into your business as usual—this results in getting the buy-in you need and gaining immediate benefits from the approach.

The Approach
In order to improve successfully, you need to know the status of your testing and what to do. By questioning, observing, and participating in actual testing, you will find out what and how to improve in your organization. The TI4Agile model will help you to assess and improve in a structured way. Use the key areas and checkpoints to your benefit and start to improve your agile testing by using Scrum.

Who Should Attend
This course equips test managers, QA managers, test team leads, software managers, test consultants, scrum masters, product owners, and IT improvement specialists with the tools and skills they need to plan for and conduct a structured test assessment and improvement initiative.

INSTRUCTOR SPOTLIGHT
Jeroen Mengerink, a test consultant for Polteq, has extensive experience working in scrum teams and the agile environment. Working directly with developers, Jeroen has a strong background working with websites, APIs, and (web) services, including both functional and performance testing. He also has performed TPI assessments for many customers around the world. Jeroen also teaches several test courses (covering subjects including Agile, SOA and Cloud, and the Certified Agile Tester Course (CAT)). He frequently speaks at international conferences and is co-author of Testing Cloud Services.

Learn more and Register: www.sqetraining.com/tia
Agile Awareness Orientation

Attendees will gain a basic understanding of:
- How a move to agile will benefit an organization
- The benefits of agile
- The basics of the agile process including Discovery, Release Planning, Sprints, Daily Standup Meetings, Sprint Reviews, and Sprint Retrospectives
- The basic tools including burn downs, team boards, and task boards
- The basic roles on an agile team
- The principles behind agile processes
- Achieve Success Via Agile Methods

Achieve Success Via Agile Methods
Agile development methods remove barriers between your customers and the development team. Using agile, your organization will more easily meet market and customer needs while attaining its ROI objectives for your project. Achieving success with agile will position your organization for success, but it requires a higher level of collaboration and business focus than many are used to. By attending this session you will understand what agile is and how you should work to boost effectiveness of the teams you are on while ensuring that work at the team level aligns with enterprise goals.

If your enterprise is moving to agile or growing the use of agile, this session is appropriate for delivery across your organization. Multiple sessions can be offered in a short time frame, allowing individuals across lines of business to gain a common consensus, vision, and understanding of agile.

Learn the Essentials of How to Work in an Agile Enterprise
This half-day course provides an overview of agile for all team members to provide a baseline understanding. Participants learn the essential concepts and tools of agile, differences between agile processes and traditional “waterfall” methodologies, and how to work in an agile team and as part of an agile enterprise.

The training will include exercises, facilitated discussions, case studies, examples and more, throughout, to illustrate the principles being taught in a comprehensive fashion interactively tailored to the organization’s needs.

Who Should Attend
This training is specifically designed for delivery to all members of an enterprise who have an involvement in the development of software, systems, and products. This includes business and IT Staff.

Learn more and Register: [www.sqetraining.com/aat](http://www.sqetraining.com/aat)
Agile Discovery Workshop

- Learn to act as an effective product lead/owner for agile teams
- Explore ways to capture and communicate initial product visions and charters using tools like the lean canvas and validation board
- Discover ways to define customer segments with personas
- Learn to cast problems as testable experiments and find problem/customer fit
- Define solutions as testable experiments and find customer/solution fit
- Understand how to write user stories to capture product feature needs
- Learn to progressively refine a product backlog
- Create story maps for coherent release planning
- Plan, review, and retrospect about a Sprint
- Define customer cohorts and funnels and track appropriate metrics
- Adapt these practices for enterprise and B2B environments

This two-day boot camp-style workshop provides product managers, analysts, designers, and entrepreneurs with a deep immersion into lean and agile innovation and product management principles, processes, and tools.

Participants will experience an essential toolkit blending aspects of several leading methods, including Scrum, the Lean Startup, and Lean UX, learning essential concepts and putting them into practice. This course utilizes leading tools like the lean canvas, validation board, story mapping, and more to equip product managers with real-world techniques that they can put into practice immediately.

Revolving around a core case study, which can be based either on hypothetical or real-world project ideas, participants get to try techniques directly. These exercises are buffered by brief training modules and direct assistance by class facilitators, for a vigorous, well-balanced, and carefully-paced experience. Exercises, movies, demonstrations, facilitated discussions, case studies, tool and template examples, and more are interwoven throughout to illustrate the principles being taught in a comprehensive fashion interactively tailored to the class’s needs, based on real world experience, not ivory-tower theory.

Who Should Attend
Product and line managers, project managers, business analysts, designers, entrepreneurs, and anyone interested in learning more about Lean and Agile approaches to innovation.

Bonus Features
- 14.0 PDUs toward PMI Certification
- 14.0 hours that can be applied for the PMI-ACP Certification

Learn more and Register: www.sqetraining.com/adw
Agile Workshop

Overview
Changing the way we work
Coding as a craft
Fitting into the whole team

Clean Code Movement
Coupling
Cohesion
Self-documenting
Naming
Size

Continuous Integration

Unit Testing and TDD
Unit testing
Automated unit testing
Unit Testing and TDD (continued)

Test Driven Development
• Red
• Green
• Refactor
• Better designs via TDD
• Mocking
Fit with ATDD

Refactoring
Code smells
To patterns
Relationship to unit tests
Refactoring legacy code

Agile Architecture and Design
Patterns
BDUF versus LRM
Emergent design

Maximize Developer Proficiency to Achieve Development Success
Agile development methods remove barriers between your customers and the development team. As a result, the development team is responsive to business goals and gets the product to market more rapidly. By attending this training, developers will learn the discipline that is required in order to achieve the responsiveness and fast turnaround time required by agile so the team can get to market faster, unleash creativity, and achieve both “quick wins” as well as long term sustainable success.

Learn the Essential Concepts and Tools of Effective Agile Development
This two-day agile engineering course provides participants with the skills necessary to write better code with fewer defects and to respond quickly to changing requirements. You will learn to use a deliberate and disciplined approach to tackle any development challenge and produce reliable, robust, and verifiable applications.

You will learn how to effectively and confidently support agile development projects by seeing how to quickly transform customer requirements into concise and verifiable development tasks, to accurately estimate timelines, and to quickly produce strong results using Agile Engineering practices such as refactoring, continuous integration, automated testing, pair programming, and automated deployment. You will acquire the skills needed to provide working applications to your customers faster and to write to today’s requirements and prepare for tomorrow’s changes.

Who Should Attend
Developers, architects, and technical leads who have a basic understanding of good programming practices and want to take their analysis, design, and programming skills to a new level.

Learn more and Register: www.sqetraining.com/aew
Eliminate Barriers to Development Success

As agile methods become more universal, executives and managers must learn how to steer and support agile adoption.

This two-day workshop will prepare leaders within your organization to drive agile programs and guide their enterprises in rapidly changing business environments. They will learn how to transform teams and organizations, making them more efficient, innovative, and nimble.

Many agile transformations improve team dynamics and collaboration but fall short of their goals to impact the larger organization. A full transformation depends not only on buy-in from teams but also on strong leadership from executives and middle management. This leadership requires a unique set of skills and knowledge.

Enterprise agile adoption requires a multitier approach; agile can be scaled to larger teams and complex projects by linking project teams and coordinating their activities.

Program and portfolio management are important for large-scale agile initiatives to communicate a strategic product vision, deliver value across organizational silos, and manage dependencies between departments and teams.

Underpinning all of this is a shift in mindset for individuals and teams. The agile mindset must be supported by an organizational culture that values transparency, collaboration, flexibility, ownership, and self-organization.

Who Should Attend

Senior management, program and portfolio managers, product and line managers, project managers, technical managers, organization change agents, and anyone interested in learning how to deploy and scale agile methods with a proven approach that minimizes risk and maximizes business value.
Agile Requirements Workshop

- Use a lightweight but disciplined requirements approach to speed time to market while increasing quality
- Progressively elaborate from a high-level vision to a user story supported with lightweight specifications
- Commit to a feature breakdown structure instead of a work breakdown structure
- Use a readiness approach to continually mature requirements and spec for release and sprint planning
- Create testable business goals and use them as the true measure of success
- Write user stories, and split or combine to represent a full slice of customer value
- Use collaborative story writing, story mapping, personas, and scenarios to drive the requirements: elicitation, elaboration, and prioritization
- Create acceptance criteria and testable examples instead of lengthy text descriptions to create clarity
- Use Acceptance Test-Driven Development (ATDD) to get better requirements
- Prioritize work using lightweight techniques like selection matrices, MoSCoW, and voting models
- Apply the basics of automated testing

Agile development methods remove barriers between customers and the development team. Using agile approaches, your organization will more easily meet market and customer needs while attaining its ROI objectives. Agile relies on lightweight but disciplined approaches to requirements, and by attending this training, your team will increase alignment with business objectives, get to market faster, and unleash creativity, achieving both “quick wins” as well as long-term sustainable success, all while having more fun.

Learn the Essential Concepts and Tools of Effective Agile Requirements

This workshop provides the participants experience to quickly deliver value in a dynamically changing environment. After this course, attendees will be able to prioritize, define, and refine requests into user stories, requirements, and lightweight specifications to simplify delivery and maximize project value. The workshop presents an easy to understand, lightweight model for agile requirements, specification by example, and functional specifications. The workshop also provides a maturation approach so that teams can balance sprint readiness with just-in-time specifications.

This course is taught by leading agile practitioners with decades of real-world industry experience at companies ranging from small businesses to the Fortune 100. Exercises, demonstrations, facilitated discussions, case studies, tool and template examples, and more are interwoven throughout the course to illustrate the principles being taught in a comprehensive fashion and are interactively tailored to each class’s particular needs.

Who Should Attend

Business customers, product managers, business analysts, quality analysts, and others aiming to maximize the benefit that they receive from their agile projects by learning how to better prioritize and define requirements.

Learn more and Register: www.sqetraining.com/arw
Agile Team Workshop

2-Day Course Outline:

Level Setting
- Introductions
- Scrum overview
- Why agile?
- Common challenges
- Terminology

Scrum Process
- Discovery Sessions
- Product Backlog
- Release Planning
- Sprint Planning
  - Tasking
  - Committing to work
- Sprint
  - Daily Scrum
  - Team Board
  - Burndown
  - Sprint Review
  - Sprint Retrospective

Kanban System
- Work not worker
- Limiting work in process
- Looking downstream

Roles and Team
- Team structures
- Poly skilling
- Emerging roles
- Diversity

Ready and Done

Requirements and Specs Overview
- From vision to user story
- Overview
- Acceptance criteria and tests
- Functional specifications

Estimating and Forecasting
- Estimating
- Burndowns/burnups
- Velocity

Expanding the Agile Universe
- PMI
- TOC and Critical Chain
- XP engineering principles
- Lean startup

Eliminate Barriers to Development Success
Scrum is an agile development method that removes barriers between your customers and the development team. Using the Scrum approach, your organization will more easily meet market and customer needs while attaining its ROI objectives for your project. As a trained team, all members will have improved quality of life and productivity, while creativity is unleashed, providing both “quick wins” for your team, as well as long term sustainable success.

Learn the Essential Concepts and Tools of Effective Scrum Teams
This workshop provides participants with experience dealing with complex issues facing agile teams today so that they can work across role and function to speed time to market while increasing quality. This workshop will cover the agile basics and beyond to provide real world, practical insights to help your team start on their agile journey or maximize the performance of your current agile teams.

This course is taught by leading agile practitioners with decades of real-world industry experience at companies ranging from small businesses to the Fortune 100. Exercises, demonstrations, facilitated discussions, case studies, tool and template examples, and more are interwoven throughout the course to illustrate the principles being taught in a comprehensive fashion. The focus of the course will be interactively tailored to each class’s particular needs to ensure your teams have what they need to take the next step.

Who Should Attend
All members of an agile team, including business analysts, quality assurance, developers, product owners, ScrumMasters along with their managers and business stakeholders.

Learn more and Register: www.sqetraining.com/atw
Agile Testing Practices

Agile software practices are being employed within many development organizations worldwide. More and more test teams and testers are participating in agile projects or are embedded within agile teams. Many testers struggle to understand the agile development process and their place in it. Learn the fundamentals of agile development, the role of the tester in the agile team, and the agile testing processes. From user story elicitation and grooming through development and testing, this course prepares you to be a valuable member of an agile development team. Explore the business and technology-facing tests agile projects demand and how agile testers help the project succeed. Learn about the techniques of Test-Driven Development (TDD) and Acceptance Test-Driven Development (ATDD). Learn technical and team skills testers need for success in the world of agile development.

Practice of Agile Testing Techniques

Explore agile testing processes in an informal and interactive workshop setting. Examples are studied through a series of small group exercises and discussions.

Who Should Attend

This course is appropriate for both novice and experienced software testers. Developers expected to test within agile teams will find this course extremely useful. Test and development managers will also benefit from this course. A background of basic development and testing processes is helpful.

INSTRUCTOR SPOTLIGHT

Robert Sabourin has more than 34 years of management experience leading teams of software development professionals. A well-respected member of the software engineering community, Robert has managed, trained, mentored, and coached thousands of top professionals in the field. He frequently speaks at conferences and writes on software engineering, SQA, testing, management, and internationalization. The author of I am a Bug!, the popular software testing children’s book, Robert is an adjunct professor of Software Engineering at McGill University.

Learn more and Register: www.sqetraining.com/agt
3-Day Course Outline:

**Introductions and Logistics**

High-Level Overview, Basics, and Getting Started

Basic syntax for the xUnit family of unit-testing frameworks
Group TDD exercise/lab
Review the basic steps
Parsing “unit test”
The big picture exercise

Discipline: A user-friendly definition

**Refactoring**

Refactoring
Tested-trek exercise

**Refactoring and Design**

Brief review of “simple design” rules, emergent design, and others

**Refactoring to OCP**

Map of Mars: Demonstrating the Open-Closed Principle (OCP), refactoring, and emergent design
Exercise

**Test-First**

Just-in-Time problem analysis
The computer-science perspective
Password checker exercise
The broken set exercise

**Test Doubles**

Mock historian exercise
Painful dependencies
Two simple approaches to building mocks
The LunEx exercise

**Legacy Code**

Definitions of “legacy”
What code to deal with today
The testing/refactoring, chicken/egg problem
The Mess-Trek exercise

**Immersion**

The battleship game exercise

**Other Topics (Time Permitting)**

TDD and agile
BDD overview

**Course Retrospective**

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**Essential Test-Driven Development**

- Learn the history and value of Test-Driven Development (TDD)
- Explore the five practices that comprise TDD
- Understand the test-first mindset and use it as Just-in-Time problem analysis
- Learn refactoring as Just-in-Time design
- Practice adding characterization tests to legacy code
- Learn about emergent design and simple design
- Use mock objects to decouple difficult dependencies

Essential Test-Driven Development is a 3-day course for developers, providing hands-on experience with the techniques of Test-Driven Development (TDD). This course is designed for experienced developers who are comfortable with their programming language and the basics of object-oriented design. Attendees learn the techniques of test-first, refactoring, mock objects, and others. They learn how these techniques provide and maintain a very low defect-count, plus why TDD helps developers work fearlessly, swiftly, and comfortably on new features and bug-fixes. Attendees will also learn how to work on legacy code: building test-coverage for critical areas and protecting areas of the legacy system that do not yet require any alteration.

This set of practices for developers is at the heart of low-defect agile software development. These techniques allow incremental development and Emergent Design to flourish without degrading quality. This course also contains a significant section on the not-so-pleasant task of adding unit tests to legacy code. The course is currently offered in Java, Javascript, C#, VB.net, or C++.

**Who Should Attend/Prerequisites**

This is an intermediate to experienced level course intended for software developers. Attendees should have competence with either Java, JavaScript, VB.net, C++, or C# programming languages, a familiarity with basic object-oriented principles of design, and a basic familiarity with an agile framework such as Scrum or Kanban.

**INSTRUCTOR SPOTLIGHT**

**Rob Myers** is principle instructor and coach at Agile for All. He has over 30 years experience with software development teams, and has been training and coaching organizations in Agile engineering practices since 1998. His courses blend fun, practical hands-on labs, “Training From the Back of the Room” learning techniques, and relevant first-person stories from both successful and not-so-successful Agile implementations. His clients include many start-ups as well as Fortune 100 multinationals. Rob is currently working on his first book, Essential Test-Driven Development.

**Learn more and Register:** [www.sqetraining.com/tdd](http://www.sqetraining.com/tdd)
1-Day Course Outline:

**Session One—Overview/Recap of Agile Principles**
- Small batches
- Small, integrated teams
- Small, continuous improvements

**Session Two—Transitioning to Agile Project Management**
- Organic Teams: to replace organizational silos and create small, high-performance agile teams
- Guiding vision: to ensure shared project, product, and team visions that drive behavior on agile projects
- Simple rules: to ensure a minimal set of context-sensitive, adaptable methodology practices
- Open information: to create an open flow and exchange of information among project team members and among other associated external groups
- Light touch: to manage agile teams with a style that allows team autonomy and flexibility and a customer value focus without sacrificing control
- Adaptive leadership: to track and monitor the project for timely and relevant feedback and institute systemic procedures for learning and adaptation

**Session Three—Project Simulation Session**
- Preparation
- Simulation

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Transitioning to Agile Project Management

Do you have formal management expertise, but are new to agile methods? Do you want to learn more about agile project management (APM) and also how your PMBOK-style management expertise can be best leveraged when managing agile projects?

This one-day workshop is designed to prepare managers with experience managing traditional/waterfall SDLC projects to manage projects that employ agile methods including Scrum and eXtreme Programming (XP). We will begin with an overview of core agile principles, agile project management practices and adjustments necessary when transitioning to APM. Next, we will prepare for a project simulation session that will simulate an actual agile project. Finally, we will simulate the running of the project, and you will get to apply many techniques through hands-on exercises.

This workshop is taught by active agile practitioners with decades of real-world industry experience at companies ranging from small business to the Fortune 250. Exercises, case studies, and examples are interwoven throughout the course to illustrate the principles being taught.

**Who Should Attend?**
Program and portfolio managers, product and line managers, project managers, technical managers, organization change agents, and anyone interested in learning how to manage agile projects with a proven approach that minimizes risk and maximizes business value. Managers with Project Management Professional certification (PMPs) should find this course especially beneficial.

**Bonus**
- 8 PDUs toward PMI certification
- Managing Agile Projects book
- Printed certificate of completion

**Learn more and Register:** [www.sqetraining.com/apm](http://www.sqetraining.com/apm)
1-Day Course Outline:

Software Development
- What is ATDD
- Why ATDD is useful
- The process
- The roles and responsibilities

Acceptance Test Examples
- Acceptance test style, size, scope, clarity

The Business Tests
- Objectives
- Scope

User Stories and Scenarios
Test Anatomy
Tables as Tests
System Boundary and Tests
Events, Responses, States
Complex Business Rule and Separation
Test Evaluation
- Common pitfalls and how to avoid them
- Maintainability, scalability
- Sustainability
Retrospective
- Transition Issues
- Motivation issues

Introduction to Cucumber for Java
Feature files
- Scenarios
Step definitions
- Asserts
- Regular expressions
- Exercise

Scenario outlines with exercise
Tables with exercise

Learn the Principles of Acceptance Test-Driven Development
- Discover how to turn requirements into acceptance tests
- Define what is a good acceptance test
- Learn how to use acceptance tests as a communication vehicle
- Explore how ATDD embodies Build Quality In and Shift Left
- Learn how to connect tests to production code using step-definitions
- Discover how to avoid redundancy in tests using outlines and tables

Built-in quality allows quicker delivery of business value. One of the key practices in realizing built-in quality is Acceptance Test-Driven Development (ATDD) / Behavior-Driven Development (BDD). This course describes how the triad (customer, tester, and developer) creates acceptance tests to provide a joint understanding of the requirements and demonstrates how to use those acceptance tests as a communication and verification tool. Applying these skills streamlines communication within the organization, decreases rework, raises customer satisfaction, and promotes trust within the organization. ATDD/BDD methods have demonstrated an ability to lower released errors by up to 90%. Automating the acceptance tests with Cucumber gives rapid verification that the system is delivering that business value. This course is based on Lean-Agile Acceptance Test-Driven Development by Ken Pugh.

This course helps participants understand how to transform requirements accurately into testable specifications. This is a collaborative, efficient approach that minimizes waste. It addresses requirements, specifications, implementation and testing. In addition, an introduction to Cucumber with Java is included.

Target Audience
- This course is appropriate for anyone who is involved in the definition, development and quality assurance of software related products including customers, product managers, business analysts, SMEs, developers and testers.

Prerequisites
- Experience with Java

Attendees are required to bring their own laptop.

ATTEND IN CONJUNCTION WITH STAR CONFERENCES

Learn more and Register: www.sqetraining.com/aic

To register, call 888.268.8770 or 904.278.0524 | www.sqetraining.com | For group pricing, email groups@sqetraining.com
As organizations look to improve the speed with which they deliver software, they increasingly turn to microservices and infrastructure-as-code software architecture and delivery techniques to help leverage value from their DevOps adoptions. Docker, an industry standard containerization tool, facilitates moving processes into isolated environments that can be frozen into images, with an ecosystem that helps developers across organizations build and share these containers. This allows a software team to break their application down into small, platform-agnostic components that can be stitched together to provide the complete application capability. Containers are easily shared through a Continuous Integration/Continuous Delivery (CI/CD) pipeline and reduce provisioning, deployment, and startup times, driving run and test cycle times down. This allows software teams to use testing time more efficiently and minimizes the difference between environments.

This course is an extension to our Fundamentals of DevOps Certification—ICAgile course and will teach you practical DevOps techniques using Docker, a DevOps tool of choice. Upon completion of the course, students will understand and have hands-on experience with critical DevOps concepts and techniques including:

- **Containers**—what they are and why they are critical to DevOps implementation
- **Management and orchestration of containers**
- **Networking Containers and sharing files and data between containers**
- **Securing Containers**

In addition, we’ll talk about critical Docker best practices that will ensure success and avoid pitfalls:

- Container rules and service design
- Managing and limiting volumes
- Managing images to minimize disk space usage
- Reducing Build Time by minimizing steps in Dockerfiles
- Improving Container Security
- Critical Container metrics

### Hands-on Exercises

In this 1-day hands-on workshop, students will construct their own containers and deploy a web application into those containers using a provided virtual machine image and will also learn to:

- Construct and run containers
- Share files and data between running containers and the host machine
- Network containers securely
- Share containers across teams and the overall organization
- Analyze and inspect running container health
- Use Kubernetes to simplify management and orchestration of containers for your application

This is a hands-on course. With their laptops, participants will construct, experiment with, and orchestrate their own containers gaining valuable experience on the hows and whys of containers as well as potential implementation pitfalls. Participants will be provided a virtual machine image to work within, minimizing prep time outside of class. Participants will need to install Oracle VirtualBox and download the (large) image file prior to the start of class.

### Who Should Attend

This course is especially appropriate for both Developers and Operations Engineers. Developers will gain a way to control and manage the dependencies of their application and drastically shorten the code-build-test cycle. Operations Engineers will learn a new way to deploy and orchestrate applications with their contexts, minimizing differences in environments from local development through production. Basic familiarity with the Linux command line interface is assumed.

Learn more and Register: [www.sqetraining.com/dcw](http://www.sqetraining.com/dcw)
1-Day Course Outline:

**Introduction to Pipeline As Code**
- What is a pipeline?
- Infrastructure as Code
- Pipeline as Code

**Overview of Jenkins**
- Freestyle vs pipeline jobs
- Plugins

**Building and Maintaining Jenkinsfiles**
- Scripted vs Declarative style
- Defining pipeline stages and steps
- Connecting to SCM, artifact repositories, and other CI/CD infrastructure
- Environment variables and credentials
- Introduction to the Groovy language
- Restrictions imposed by the Groovy sandbox
- Using Global Libraries to share pipeline code between projects
- Maintenance and refactoring strategies
- Versioning

**Pipeline Visualization**
- Traditional pipeline visualization
- Pipeline visualization using Blue Ocean

**Managing Resources**
- Sharing resources between branches and jobs
- Ensuring resource cleanup

**CI/CD Best Practices for Multi-branch Pipelines**
- Testing strategies
- Deployment strategies
- Notification strategies

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### Learn practical techniques for building and working with Jenkinsfile
- Understand declarative and scripted pipelines
- Utilize core pipeline-as-code concepts like nodes, stages and steps
- Develop multi-branch pipelines with Jenkins Pipeline and Jenkinsfiles
- Understand pipeline visualization

As organizations look to improve the speed with which they deliver software, they increasingly turn to Continuous Integration/Continuous Delivery (CI/CD) pipelines and infrastructure-as-code software architecture and delivery techniques to help leverage value from their DevOps adoptions. While many of the steps in a pipeline are automated, management of the pipeline itself remains a largely manual process.

Pipeline as code gives teams the ability to define and manage an entire DevOps CI/CD pipeline in code, allowing them to store pipeline configurations in source control, version them, and independently test them.

The Jenkins CI server supports pipeline as code through a concept known as a Jenkinsfile. This is a configuration file that allows teams to define each step in their pipeline. This means that by using a Jenkinsfile, developers no longer have to manually create Jenkins jobs or actively manage the pipeline and can focus on developing and testing their applications.

This course is an extension to our Fundamentals of DevOps Certification—ICAgile course and will teach you practical techniques for building and working with Jenkinsfile. Upon completion of this course, students will understand and have hands-on experience with Jenkinsfile, including:
- Declarative and scripted pipelines
- Core pipeline-as-code concepts like nodes, stages, and steps
- Developing Multi-branch pipelines with Jenkins Pipeline and Jenkinsfiles
- Pipeline visualization
- CI/CD Best Practices

### Hands-on Exercises
In this 1-day hands-on workshop, students will build a multibranch pipeline using Jenkins and Git.

With their laptops, participants will construct, experiment with, and orchestrate their own pipelines gaining valuable experience on the hows and whys of pipeline as code as well as potential implementation pitfalls. Participants will be provided a virtual machine image to work within, minimizing prep time outside of class. Participants will need to install Oracle VirtualBox and download the (large) image file prior to the start of class.

### Who Should Attend
This course is especially appropriate for both Developers and Operations Engineers. Both will learn ways to collaborate more in the orchestration of builds, artifact management, and automated deployments. Basic familiarity with the Linux command line interface is assumed.

Learn more and Register: [www.sqetraining.com/jpw](http://www.sqetraining.com/jpw)
1-Day Course Outline:

Course Overview
Agile development adoption is driving the need for increased value delivery efficiency. Software development, testing, and operations must evolve to meet iteration and release delivery goals while continuing to meet organizational quality objectives.

DevOps combines development, testing, and operations and includes continuous integration, automated testing, continuous delivery, and rapid deployment practices. Because DevOps practices require confidence in nearly all changes, automated testing is an essential ingredient that is integrated into the process and relied upon for enforcement of quality gates and to ensure overall delivery quality.

This course is the add-on lab companion to our Fundamentals of DevOps Certification—ICAgile course and will teach you how to avoid the common mistakes of DevOps implementations and how to leverage DevOps best practices. Upon completion of the course, students will understand and have hands-on experience with critical DevOps techniques including:

- The use of Puppet for system installation and configuration
- Setup and use of Vagrant workflows for creating, customizing, and configuring virtual environments
- Customization and use of automated deployment scripts to implement the environment
- Provisioning
- Deployment
- Configuration
- Test Data Population
- Automated Test execution
- Environment cleanup/disposal

Hands-on Exercises
In this one-day hands-on workshop, students will stand up a local test environment including initial provisioning and configuration of a multi-tier test application, web server, DB server, and a selenium test client. Students will also utilize automation scripts to execute automated testing.

With their laptops, participants will connect remotely via Google Chrome VNC to a specialized virtual environment for the hands-on portion of this session, so a laptop is required and software will need to be pre-loaded and configured before class begins.

Who Should Attend
This course is appropriate for experienced test professionals, operations engineers, developers, project managers, and business owners.

Learn more and Register: www.sqetraining.com/pvw
JMeter Performance Testing Workshop

- Learn how to quickly configure JMeter for practical load testing
- Understand Web services testing and beanshell scripting
- Learn how to develop, run, and analyze JMeter scenarios
- Explore and use a fully pre-configured instance of JMeter

The Apache JMeter™ application is open source software, a 100% pure Java application designed to load test functional behavior and measure performance. This hands-on workshop teaches you how JMeter is used to test performance both on static and dynamic resources, and Web dynamic applications. In class, you will simulate load on a server, a group of servers, or a network or object to test its strength or to analyze overall performance under different load types. The workshop format provides a rich interactive learning experience with incremental lessons and labs that build upon one another.

Who Should Attend?
This course is appropriate for Software Developer, Software Tester, Test Engineer, Performance Test, Performance Engineer, Test Lead, and operational support roles.

Prerequisites
- Knowledge and understanding of Java
- One or more years of programming experience
- Understanding of HTTP protocol
- Knowledge of performance testing concepts
- Understanding of system architectures

Attendees are also required to bring their own laptop to be able to complete the exercises.

ATTEND IN CONJUNCTION WITH STAR CONFERENCES

STAR EAST
April 29–30, 2018
Orlando, FL

STAR WEST
Sept. 30–Oct. 1, 2018
Anaheim, CA

Learn more and Register: www.sqetraining.com/jpt

To register, call 888.268.8770 or 904.278.0524 | www.sqetraining.com | For group pricing, email groups@sqetraining.com
Mastering HP LoadRunner® for Performance Testing

- Understand performance implications of technologies and protocols in modern data centers
- Select scenarios to measure performance and capacity risks organizations face today
- Design emulation scripts, scenarios, and reports to expose various risks
- Customize a test plan based on budget and role of disciplines involved in performance testing
- Set up controllers, load generators, monitoring, and virtual table servers
- Generate and edit TruClient and VuGen scripts to emulate Internet browsers and use test data
- Design coding practices to make scripts re-usable and easy to change
- Apply naming conventions and techniques to manage test data and configure reports
- Practice presentation of results and filing of performance defects to ensure follow-on action

Practical Experience with LoadRunner® Testing
This hands-on tutorial provides students with the knowledge and skills to use the latest testing tools provided by HP to validate decisions and improve software performance. Creating and managing lab environments will be discussed within the context of test planning and execution. By the end of the course, students are equipped to begin planning the implementation of LoadRunner® and Performance Center for improving testing practices within their organizations.

Hands-on Experience with LoadRunner® Testing Tools
This course provides hands-on experience with LoadRunner® testing functions and new features, including TruClient, Virtual Table Service, using add-ins to calculate Base 64, and signing for OAuth access to APIs.

Who Should Attend
This course is intended for experienced software performance engineers who have actively participate in test planning, test case development, test execution, test automation, and managing test environments.

Laptop Required: Students are expected to bring and use their own laptops. With prior notice, remote VMware instances may be available if adequate network facilities are available on site.

Wilson Mar has been working with LoadRunner since the 90s as a Mercury Interactive Certified Instructor, author, and popular blogger. He is currently a Developer Evangelist on Performance Engineering on agile mobile performance testing and other software technologies.

Learn more and Register: www.sqetraining.com/hpl
Python® for Testers

2-Day Course Outline:

**Introduction**
What is Python?
Basic syntax, structure of Python code
Importing modules
The REPL Basic constructs
The standard library
Python 2 vs 3

**Generating Test Data**
Built-in data types and objects
Control statements and control flows
Writing data into files

**Gathering Test Artifacts**
Python Methods
Working with the file systems and operative system
Manipulating file paths
Compressing and transferring test data

**Real Time Monitoring of System Under Test**
Introduction to Object Oriented Python and classes
Text parsing and manipulation
Manipulating dates and timestamps
Formatting output in terminal
Reading data from files

**Generating Test Data Continued**
CSV - Comma Separated Values
Compressing data continued
Traversing and mapping file systems
Input from command line

**Web Calls, REST APIs, and Monitoring Systems**
Installing 3rd party libraries
Working the data format JSON
HTTP Requests
Calling and testing REST APIs
Monitor system under test

**Controlling External Processes**
PExpect—The Python implementation of Expect Calling and testing SOAP APIs

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**Learn by Doing**
This is a course for testers who are frustrated by the laborious and manual work that makes up day-to-day test work, anyone who has tried or wants to try scripting and programming in order to help them focus more on the sapient test activities and let the computer do the repetitive work.

During the course we will work with a strong focus on practical knowledge and learning by doing with much hands-on coding so that attendees can work independently with Python after the course. A large amount of exercises are built to give the opportunity to build simple but powerful tools using Python, which gives a deeper understanding of the opportunities that the language offers.

**Why should I invest time in learning Python?**
Because Python is powerful, efficient, and very fun to work in. You feel productive from the start and produce results with surprising speed. It is the perfect choice for a tester who wishes to use a programming language to assist them in their testing, and it’s not a language that ends up standing in your way. Python is well established with over 20 years of history, included out of the box in most modern operating systems. It has a diverse, huge, and active community and eco-system.

**Who Should Attend**
This course should be attended by engineers in a testing role or those seeking an introduction to programming concepts to develop their skills and learn more about the benefits and power of using Python for testing. The attendees are required to have basic computer knowledge and a genuine interest in learning about scripting and programming.

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**Laptops are required for this class.**

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Learn more and Register: [www.sqetraining.com/pft](http://www.sqetraining.com/pft)
3-Day Course Outline:

Introduction to Microsoft Test Manager
- Learn about setting up and managing tests using Microsoft Test Manager
  - Test plans
  - Test suites
  - Test cases
  - Parameters
  - Shared steps
  - Test configurations
  - Test settings

Manual Testing Features with Microsoft Test Manager 2017
- Run manual tests
- Enable manual test data collection
- Fast forward manual tests
- Exploratory testing
- File bugs found during testing
- Verify bugs

Newly Released Web Test Manager 2015 Features
- Create test plan
- Web Test Runner
- Use MTM Test Runner from web
- Test case bulk entry and edit
- Customize and filter views
- Email and print

Software Quality Practices with Team Foundation Server 2017
- Overview of TFS
- Requirement to test cases traceability
- Acceptance-driven testing
- Track bugs throughout lifecycle
- Create queries to track work
- Understanding TFS builds
- MTM reporting
- TFS reports

Introduction to Automated Testing Features of Visual Studio 2017
- Convert manual tests to coded UI automated tests
- Create coded UI automated tests
- Record tests using coded UI Test Builder
- Use coded UI map editor
- Create automated testing verification
- Data-driven automated tests
- Overview of web tests
- Overview of load tests

Overview of Automation with Virtual Lab Environments
- Virtual lab environment configuration
- Connecting to virtual lab environments
- Running automated tests with virtual lab environments

Real-World Software Testing with Microsoft Visual Studio®

Learn how to effectively test using Microsoft Tools

- Explore the testing components of Visual Studio® Test Professional 2017 and see how you can use these to improve software quality
- Increase productivity by planning, executing, and tracking tests using Microsoft Test Manager 2017®
- Learn how rich data collectors enhance bug reproducibility
- Support agile testing practices with features such as exploratory testing
- Increase test coverage with automated testing using Microsoft’s Visual Studio® Coded UI
- Collaborate seamlessly with other team members using Team Foundation Server 2017®
- Take advantage of the latest Visual Studio 2017® virtualization integration

Enable High-Quality Software through Visual Studio® Testing Tools
This course provides students with real world software testing techniques and technical skills using the latest Microsoft Test Manager 2017®, Visual Studio 2017®, and Team Foundation Server 2017® tools. We will cover manual testing features such as test case management, execution, and reporting and how Visual Studio® makes these processes powerful and organized. You will learn about the newly released Visual Studio® Web Test Manager and be introduced to automated testing with Visual Studio®. Discover how to effectively integrate QA with Team Foundation Server’s requirements, bug tracking, and work and build management capabilities. Increase automation effectiveness using virtual lab environments.

Hands-on Experience with Visual Studio® Testing Tools
This course provides hands-on experience with the detailed Microsoft testing functions and new features including: Microsoft Test Manager, Visual Studio® Web Test Manager, exploratory testing, automated tests, and automated builds. Although the labs will be performed using Visual Studio® 2017, most labs are also applicable to Visual Studio® 2015 and 2013. Please refer to the outline for the hands-on lab details.

Who Should Attend
This course is intended for software testers who actively participate in test planning, test case development, test execution, test automation, and test environment management.

Laptops are required for this class.

ATTEND IN CONJUNCTION WITH STAR CONFERENCES

STAR WEST
A TECHWELL EVENT
Sept. 30–Oct. 2, 2018
Anaheim, CA

INSTRUCTOR SPOTLIGHT

Anna Russo is an ALM MVP specializing in ALM TFS Software Process consulting and training. Since 2008 Anna has worked with a variety of clients to improve their software quality and processes by properly implementing Microsoft Team Foundation Server, Test Manager, and Visual Studio tools. Anna applies hands on expertise providing: install/upgrade/customize TFS server, mentor on software processes, technical training, release strategies, automated build scripts, automated testing, and building virtual lab infrastructures.

Learn more and Register: www.sqetraining.com/uv
Selenium Test Automation: From the Ground Up

- Learn how to incorporate test automation in the development process
- Discover what Selenium is and how it works
- Find out how to craft maintainable test frameworks and test suites
- Understand pain points and solutions to common UI Testing problems

Selenium is the industry-standard tool for doing black box, User Interface Testing of web applications and is a much sought after skill in today’s world of test automation. As companies transition to agile environments, Selenium is an essential tool to release quality software more quickly. This course not only demonstrates how to use Selenium, but it will show you how to approach testing websites in general. This course will teach you how to incorporate industry best practices to build maintainable User Interface test suites.

Who Should Attend
- Those doing manual testing who want to automate and who need to understand what Selenium is and how it can be adopted
- Developers who are familiar with automated testing but need to better understand the details of Selenium and creating maintainable test suites with it

Prerequisites and Requirements
- Familiarity with Java or Open Source Programming
- Laptop with administrator access
- Installation of the Java Development Kit (JDK)
- Installation of IntelliJ Community Edition IDE

ATTEND IN CONJUNCTION WITH THESE CONFERENCES

- **Agile Dev WEST**
  - June 3–4, 2018
  - Las Vegas, NV

- **AGILE USA**
  - June 25–26, 2018
  - Orlando, FL

Learn more and Register: [www.sqetraining.com/sta](http://www.sqetraining.com/sta)
Selenium 2 WebDriver With Java
Easily Learn How to Write Effective Automation Code

- An experienced practitioner teaches you to use Selenium Webdriver
- Master real-world techniques with Selenium WebDriver API
- Learn by doing with an additional six hours of self-learning exercises

Selenium WebDriver is the web automation tool of the moment, and its skills are in demand. When you understand Selenium WebDriver usage patterns, you can increase your ability to write efficient automation code.

In this course, you will learn via real world techniques associated with the Selenium WebDriver API, based on the experience of using Selenium WebDriver to automate production websites. This course focuses on the information you need to get productive with Selenium WebDriver. It does not cover Selenium IDE because you won’t use that in a production environment. The course emphasizes and demonstrates self-learning strategies so that you don’t just learn the Selenium WebDriver API in depth, you also learn how to discover more on your own.

About the Course
We have taken three days of course material and created complete video instruction. Learn from an additional six hours of self-learning exercises. Before you sign up for the course, make sure you take advantage of supplementary information provide for free. In addition to the lectures and exercises, there are also over 200 slides to aid your self-study and 4,500 lines of code to study (calculated using Metrics Reloaded). Your work will be supported as you go through the course, and if you need any additional explanation or have a question, you can ask in the comments section. We will answer and even create new videos showing the answers and then add them to the course.

When you are ready to learn Selenium WebDriver in depth, sign up and let our online video training help you.

INSTRUCTOR SPOTLIGHT
Alan Richardson has been working with Selenium since 2007 and WebDriver since 2010. Over the years he has helped his staff learn Selenium using the methods in this course: discussing the theory, showing examples, hands-on work, then critique and code reviews of worked examples.

Learn more and Register: www.sqetraining.com/sel
REQUIREMENTS
TRAINING

To register, call 888.268.8770 or 904.278.0524 | www.sqetraining.com | For group pricing, email groups@sqetraining.com
Requirements-Based Testing Workshop
A Disciplined Approach for Designing, Maintaining, and Executing Tests

- Develop and maintain efficient tests that cover all functional requirements
- Design test cases that force defects to appear early in testing
- Learn and practice cause-effect graphing to design more robust tests
- Learn and practice alternative test design approaches—pairwise, equivalence class
- Optimize and reduce the size of your test suite
- Integrate testing in the software development lifecycle

If your testing efforts are not achieving the payback you and your organization expect, this course is for you. Requirements-Based Testing (RBT) delivers a proven, rigorous approach for designing a consistent and repeatable set of highly optimized test cases. Companies employing RBT practices have achieved twice the requirements coverage with only half the tests they previously maintained.

Design the Test Library
The RBT process helps you validate that the requirements are clear and complete. Then, it guides you to define a set of tests verifying that the design and code fully meet those requirements. You’ll learn and practice cause-effect graphing, a test design technique that ensures that defects will be fully observable. If there are any defects in the software—even ones that could be hidden from tests by other errors—cause-effect graphing will find them. With this technique, you’ll be able to reduce the number of tests you need and make sure that every test is valuable.

Explore alternative test design techniques and the advantages and disadvantages of each. Learn how to complement functional, black-box testing with code-based, white-box testing to further ensure complete coverage and higher quality. Classroom exercises are employed throughout the course to reinforce your learning.

Leave With a Testing Process That Integrates With the Development Lifecycle
Take back a lifecycle testing process that incorporates testing as an integrated—and integral—part of the software development project. With the RBT process, your next project will experience significant time and cost savings while helping the test team develop better estimates and dynamically track test and project progress.

Bring samples from your own projects to work on and evaluate during class.

Who Should Attend
Requirements-Based Testing is for test managers, test engineers, QA specialists, software managers, and anyone responsible for developing tests and test suites.

Although the focus of this course is on process and techniques, there will be a brief introduction to the BenderRBT™ software tool, which automates much of the requirements-based testing process.

Learn more and Register: www.sqetraining.com/rbt

ATTEND IN CONJUNCTION WITH STAR CONFERENCES

STAR EAST
A TECHWELL EVENT
April 29–May 1, 2018
Orlando, FL

Learn more and Register: www.sqetraining.com/rbt
Mastering Business Analysis

- Discover the real business needs and find the right solution on how to improve the business
- Define and analyze customer segments and how to write a value proposition that clarifies the intention of the business change
- Define a project so that it yields real benefits and write correct business stories
- Innovate and find the best solutions to improve your client’s business by becoming an improved business analyst

Business analysis is the foundation of automated system development and meaningful business change. This means uncovering the real business problem and then crafting its optimal solution. Determine that there is a real and tangible value to be had from any proposed solution. Find the real scope of the business problem, of determining the challenges faced by the customer segments, and designing innovative, appropriate, and beneficial solutions. In short, good business analysis ensures that the right systems are built, the right changes are made, and the owner or sponsor receives the optimal value for the development effort. Business analysis is work study and modelling, systemic thinking, innovating, writing stories, persuading, and several other analytical skills. This course gives you the tools, the thinking and communicating skills, and the process for successful business analysis.

Who Should Attend
While we believe that business analysis is almost everyone’s job—every employee has some responsibility for effective business improvement—the most likely job titles you would find at this course are: Business Analysts, Product Owners, Systems Analysts, Project Leaders, Requirement Engineers, and Product or Program Managers. We also find Business Stakeholders, Users, and Software Customers benefit from learning advanced business analysis techniques and how they can contribute to the organization’s well being.

INSTRUCTOR SPOTLIGHT


Learn more and Register: www.sqetraining.com/mba
Learning Options

**1-Day Course Outline:**

- **Introduction**
  - Definition of good requirements
  - Testable requirements
  - Deterministic results and requirements
- **Confusing Constructs**
  - Limitations of the English language
  - Examples of ambiguity
  - Ambiguity review checklist
- **Finding Ambiguities in Requirements**
  - Techniques for Improving Requirements and Software
  
  Studies have shown that poor requirements are one of the most significant contributors to project failure—and half of all defects have their origin in bad requirements. If specifications are ambiguous, there is nearly a 100% chance that there will be one or more defects in the corresponding code.

  **Techniques for Quickly Reviewing Requirements for Ambiguities**

  Exploring ways to review specifications quickly and quantitatively to identify what is unclear about them. This powerful, yet practical method helps you ensure that requirements documentation is clear, concise, and unambiguous.

  Learn about and practice simple, effective review techniques that can reduce the ambiguity rate by 95% on subsequent specifications. In addition, you'll learn to determine if the requirements are detailed enough to produce a sufficient set of test cases to validate the system's functionality. To reinforce lectures and discussions, you’ll practice your newly acquired knowledge and skills in classroom exercises.

  You can apply these same techniques to design specifications, user manuals, training materials, and online help, as well as agreements and contracts for software development projects.

- **Who Should Attend**

  This course is intended to help those who write and review functional requirements and those who develop and test systems based on those requirements. The audience includes business analysts, test analysts, requirements engineers, developers, technical writers, and project managers. No specific prerequisites are assumed.

Learn more and Register: [www.sqetraining.com/far](http://www.sqetraining.com/far)
Agile Requirements Workshop

- Use a lightweight but disciplined requirements approach to speed time to market while increasing quality
- Progressively elaborate from a high-level vision to a user story supported with lightweight specifications
- Commit to a feature breakdown structure instead of a work breakdown structure
- Use a readiness approach to continually mature requirements and spec for release and sprint planning
- Create testable business goals and use them as the true measure of success
- Write user stories, and split or combine to represent a full slice of customer value
- Use collaborative story writing, story mapping, personas, and scenarios to drive the requirements: elicitation, elaboration, and prioritization
- Create acceptance criteria and testable examples instead of lengthy text descriptions to create clarity
- Use Acceptance Test-Driven Development (ATDD) to get better requirements
- Prioritize work using lightweight techniques like selection matrices, MoSCoW, and voting models
- Apply the basics of automated testing

Agile development methods remove barriers between customers and the development team. Using agile approaches, your organization will more easily meet market and customer needs while attaining its ROI objectives. Agile relies on lightweight but disciplined approaches to requirements, and by attending this training, your team will increase alignment with business objectives, get to market faster, and unleash creativity, achieving both “quick wins” as well as long-term sustainable success, all while having more fun.

Learn the Essential Concepts and Tools of Effective Agile Requirements

This workshop provides the participants experience to quickly deliver value in a dynamically changing environment. After this course, attendees will be able to prioritize, define, and refine requests into user stories, requirements, and lightweight specifications to simplify delivery and maximize project value. The workshop presents an easy to understand, lightweight model for agile requirements, specification by example, and functional specifications. The workshop also provides a maturation approach so that teams can balance sprint readiness with just-in-time specifications.

This course is taught by leading agile practitioners with decades of real-world industry experience at companies ranging from small businesses to the Fortune 100. Exercises, demonstrations, facilitated discussions, case studies, tool and template examples, and more are interwoven throughout the course to illustrate the principles being taught in a comprehensive fashion and are interactively tailored to each class’s particular needs.

Who Should Attend

Business customers, product managers, business analysts, quality analysts, and others aiming to maximize the benefit that they receive from their agile projects by learning how to better prioritize and define requirements.

Learn more and Register: www.sqetraining.com/arw
3-Day
Course Outline:

Overview of Essential Software Requirements
- Types of requirements
- The benefits of “good” requirements
- When and how much to document requirements
- The WebPhlyx Case Study

Development Approaches and Requirements
- Plan-Driven—values, core practices, and documentation
- Agile—values, core practices, and documentation

The Product Vision
- Product Vision—the foundation of the project effort
- Understanding business requirements
- The role of the product champion
- Identifying and involving stakeholders
- User classes and user representatives
- Exercise: Identifying project stakeholders
- Developing the Product Vision document
- Exercise: Create a Product Vision statement

The System Requirements
- User, functional, and non-functional requirements
- and business rules
- Mandatory vs. preferred requirements
- Exercise: Specifying non-functional requirements
- Business rules—facts, constraints, action enablers, computations, and terms
- Information sources and the discovery process
- Formal documentation and tools
- Plan-Driven documentation
- Exercise: Create a part of a System Requirements Specification
- Agile documentation
- Exercise: Create user stories and a use case
- Visual models
- Exercise: Create a decision table
- Exercise: Create a state-transition diagram

Organizational Processes
- Working together
- Joint Application Development (JAD) Reviews
- Exercise: Creating and revising ambiguous requirements

Course Summary

Requirements Training

Essential Software Requirements
Techniques and Practices for Successful Projects

- Take away powerful techniques for identifying, documenting, and verifying requirements
- Understand the best of both the formal plan-driven and agile requirements approaches
- Use the product vision as a roadmap to success
- Discover how to elicit and document system requirements
- Learn new skills with practical, interactive exercises

Clear, concise, and accurate requirements will help avoid late, over budget, or cancelled projects. Too much documentation or inflexible requirements can bog down a project. Find the right mix of formal written requirements and agile documentation—user stories, use cases, prototypes, and visual models—that works best for you.

This practical, hands-on course will provide a flexible requirements development approach customized to your environment and the skills needed to successfully discover, analyze, communicate, and evaluate requirements.

Powerful Techniques for Identifying, Documenting, and Verifying Requirements
Many acknowledge that their processes need some improvement but feel helpless to do much about the problem. In this course you will learn how to fill the critical information gaps and freshen up those stale requirements processes in a highly practical way. Take away a new awareness of what “good” requirements are really about and the skills to help you complete your project on time and on budget.

The Best of Formal Plan-Driven and Agile Requirements Development Approaches
Learn how the plan-driven and agile development approaches differ in terms of timing, depth, and documentation of these valuable references. The plan-driven approach values product and process documentation. The agile approach values individuals and collaboration, working software, and the ability to swiftly accommodate change.

Practice New Skills with Interactive Exercises
This course offers interactive exercises to provide practical experience and improve your requirements development skills. Use a real-world case study to identify stakeholders, develop a vision statement, and produce concise, accurate, and usable requirements documentation. Find ways to transfer the newly learned techniques back to your organization’s requirements process and take away a framework for understanding business and user needs to develop a suitable software solution.

Who Should Attend
Whether you are a requirements or business analyst, software engineer, developer, test engineer, user, stakeholder, or a member of the QA staff responsible for gathering, analyzing, documenting, confirming, and maintaining requirements, this course is for you.

Learn more and Register: www.sqetraining.com/esr

To register, call 888.268.8770 or 904.278.0524 | www.sqetraining.com | For group pricing, email groups@sqetraining.com
Get Requirements Right the First Time
An Effective Approach to Requirements Discovery

- Characterize the scope of the requirements work in a graphic form
- Define goals, constraints, facts, and assumptions
- Partition the requirements work
- Get down to the detailed requirements

An Efficient and Effective Approach
Whether you are just getting the requirements for a new feature or you are on a large team trying to define the requirements for a brand new system, you are always under time pressure. Getting the requirements work off on the right foot is critical. The Volere (meaning “to wish” or “to want” in Italian) process for requirements discovery has a front-end defined with efficiency in mind and can be tailored to best fit your specific situation. It is a systematic way to get to the point where there are no unpleasant surprises when you go into the study of detailed requirements.

A Proven Approach
The Volere process has been defined for almost 20 years and is practiced by organizations around the world. The text, Mastering the Requirements Process, is now in its 3rd edition. The Volere requirements specification template is now in its 15th edition.

Who Should Attend
Anyone participating in defining requirements will find value in this course, whether you are a business analyst, project manager, or subject matter expert.

INSTRUCTOR SPOTLIGHT


Learn more and Register: www.sqetraining.com/vgrr
Mastering the Requirements Process
Build the Right Software the First Time

- Learn the complete process of uncovering the real requirements, and ensuring their correctness
- Learn how to write universally understandable and testable requirements
- Learn how to separate the real needs from the presumed solutions
- Learn how to gather requirements in an agile environment

How to Get the Right Requirements—the First Time
Software has only one purpose—to satisfy the real needs of its user or customer. Building such software is relatively straightforward providing the real needs—in all their subtlety and concealment—have been discovered. Discovering the requirements is the role of the requirements process.

Requirements is about understanding the actual work of the business users, both the current process and what you need it to be for the future. Requirements is about discovering the product that will add long-term value to the organization—and then writing requirements that result in the developers building the exact product.

In businesses today there are more demands for cutting-edge software, and fewer resources to meet those demands. Getting it the first time is the only way to succeed under these circumstances. Today’s requirements process is incremental; it uses prototypes and scenarios; it uses agile stories, FIT criteria, and requirements testing to ensure you get the right result.

Your Requirements
Requirements are the most misunderstood—yet the most crucial—part of systems development. If the requirements are wrong, you end up with loads of late re-work, or even worse, with the wrong system. Your requirements process must be your own, but it should be based on field-proven techniques and templates. This course presents the Volere process—used and improved by thousands of organizations around the world—and then shows you how you make it into your own process.

As a participant, you receive the Volere Requirements Specification Template—downloaded by more than 13,000 users—to take home with you.

Your instructor is a real-world business analyst who has written requirements for dozens of projects, and will bring you insight that only comes from significant experience.

Bonus

Learn more and Register: www.sqetraining.com/mrp
Mastering the Requirements Process—Part II
Take Your Requirements Skills to the Next Level

- Using a requirements knowledge model for communication and traceability
- Maximizing the value of your requirements investment
- Integrating creative requirements practices for innovative products
- Taking advantage of requirements practices to enable change
- Matching project success indicators and good requirements practices

Make More from Your Requirements

We studied practitioners using the Volere requirements practices to assess what they needed to get an even greater advantage from their requirements projects—this workshop is the result. This is an advanced course: it improves the skills of experienced business analysts and teaches how to use the requirements deliverables for project management.

We show you ways of choosing the best set of requirements to give you a competitive edge and still get your product to market on time. We include techniques for quantifying the business value of your requirements investment. We show you how to anticipate market opportunities by inventing the requirements that your customers are not yet asking for. And we deal with requirements for existing systems, along with techniques for managing meta-projects—large projects made up of many technologies and sub-projects. The project sociology section in this seminar helps you to discover the correct stakeholders for your project, involve them in the appropriate parts of the project, and more importantly, keep them involved.

Extending Your RequirementsCapabilities

Mastering the Requirements Process gave you the requirements discovery and communication techniques to discover exactly what your customers need and want for their products and to write measurable requirements. This seminar, Mastering the Requirements Process—Part II, builds on your ability by showing you how to use good requirements management practices as a communication and project management tool. The seminar makes it possible for you to realize the benefits of requirements at a higher level—one where you use requirements deliverables to control your project and produce systems that deliver the maximum possible benefits to your customers.

Who Should Attend

This seminar is appropriate for business analysts, systems managers, project leaders, project managers, consultants, systems analysts, and planners. The material is aimed at people who are experienced requirements engineers and already have practical working knowledge of business events, business use cases, product use cases, context models, stakeholder maps, requirements templates, functional requirements, non-functional requirements, and constraints. This seminar assumes that you are fully conversant with the skills and techniques taught in the first seminar, Mastering the Requirements Process (part I).

Learn more and Register: www.sqetraining.com/mr2
Instructor Spotlight

Richard Bender has over 45 years experience in software with a primary focus on quality assurance and testing. He has consulted internationally to large and small corporations, government agencies, and the military. Richard’s work has included a wide variety of application classes and technology bases from embedded systems to super computer-based systems—and everything in between—consulting to both vendors and IT departments alike. He has been active in establishing industry standards for software quality and is a frequent speaker at conferences, universities, and corporate events. He was one of the first programmers ever awarded IBM’s Outstanding Invention Award for his breakthroughs on code-based testing.

Gary Mogyorodi is an additional instructor for this course.

Learn more and Register: www.sqetraining.com/wtr
Introduction
Fundamentals of software testing
Software context—Why does software fail?
Principles, scope, and focus of testing
Debugging vs. testing
Understanding risk
Identifying and analyzing project and product risks
Goals of testing
Basic testing process
Test psychology—viewpoints on testing

Testing throughout Software Development
Testing and development
Early testing
Models and testing
The “V” model
Verification and validation
Test levels—unit, integration, system, acceptance
Understanding regression testing
Understanding test types

Static Techniques
What is static testing?
Reviews, inspections, walkthroughs, etc.
General review process
Common types of reviews
Roles and responsibilities in reviews
Success factors for reviews
Limits of reviews
Understanding static analysis tools

Test Design Techniques
Overview of test design and the design approach
Documentation decisions
Types of test design techniques
Human/experience-based methods
Black-box (functional) techniques
White-box (structural) techniques
Experience-based techniques
Selecting the appropriate test technique

Test Management
Team organization
Roles and responsibilities
Understanding the test manager
Understanding the tester
Test planning and strategy
Configuration management and testing
Defect/incident classification and management

Tool Support for Testing
Selection process
Introduction
Benefits
Risks and concerns
Classifications

Course Accreditations

Are you looking for an internationally recognized certification in software testing? Delivered by top experts in the testing industry, eSoftware Tester Certification—Foundation Level is an accredited training course to prepare you for the ISTQB® Certified Tester—Foundation Level exam. This program is the only internationally accepted certification for software testing, accredited by the ISTQB® through its network of national boards. The ISTQB®, a non-proprietary organization, has granted more than 500,000 certifications in over 100 countries around the globe.

Course Features and Benefits
• 24/7 access for 90 days: Learners have unlimited access to online content for a full 90 days from the date of purchase.
• Interactive exercises: Students will be able to participate in interactive exercises throughout the course.
• Lesson questions: At the end of each lesson, students answer sample questions that link back to content screens for additional learning.
• Sample exam: At the end of the course, take an assessment exam to confirm your new knowledge and skills and to prepare for taking the ISTQB® Foundation Level certification exam.
• Course manual: The course includes a 400-plus-page downloadable course manual.
• ISTQB® Study guide: Download a helpful study guide that cross references the course syllabus to help you study for the exam.
• 22.5 professional education contact hours/PDUs: Eligible for continuing education PDUs from the Project Management Institute.

Learn more and Register: www.sqetraining.com/estf
Built-in quality allows quicker delivery of business value. One of the key practices in realizing built-in quality is Acceptance Test-Driven Development (ATDD) / Behavior-Driven Development (BDD). This course describes how the triad (customer, tester, and developer) creates acceptance tests to provide a joint understanding of the requirements. It shows how to use those acceptance tests as a communication and verification tool. Applying these skills streamlines communication within the organization, decreasing rework, raising customer satisfaction, and promoting trust within the organization. These methods have demonstrated an ability to be able to lower released errors by up to 90%. This course is based on Lean-Agile Acceptance Test-Driven Development by Ken Pugh.

This course helps participants understand how to transform requirements accurately into testable specifications. This is a collaborative, efficient approach that minimizes waste. It addresses requirements, specifications, implementation, and testing.

**Who Should Attend**
This course is appropriate for anyone who is involved in the definition, development, and quality assurance of software related products including customers, product managers, business analysts, SMEs, developers, and testers.

Learn more and Register: [www.sqetraining.com/eabd](http://www.sqetraining.com/eabd)
Course Outline:

- Course Overview
- Common and Uncommon Measures
- Basic Definitions of Software Measurement
- Why Measure?
- Measurement and Metrics—Challenges and Requirements
- Metrics Rules of Thumb
- Foundational Material for Your Measurement and Metrics Plan
- Define Your Measurement Plan
- Assess Your Current Measures and Metrics
- Measures and Metrics in the Context of Your Development Lifecycle
- Goal, Question, Metric + Strategies Paradigm
- A Quality and Test Dashboard
- The Quality of Product Gauge
- The Test Status Gauge
- The Test Effectiveness Gauge
- The Test Efficiency Gauge
- The Resources Gauge
- The Issues Gauge
- Using the Dashboard
- Selling, Piloting, and Implementing Metrics
- Lessons Learned and Wrap-Up

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**eLEARNING**

### eQuality and Testing Measures and Metrics

- Develop a measurement and metrics plan tailored to your organization
- Select the right measures for your project and organization
- Explore testing’s role in software measurement
- Create a custom quality and test metrics dashboard
- Learn how to avoid dysfunctional metrics

**Bonus:** This course includes one hour of virtual consulting services with one of our expert consultants/instructors to help you customize the measurement and metrics plan for your organization.

To be most effective, leaders—such as development and testing managers, ScrumMasters, product owners, and IT managers—need metrics to help direct their efforts and make informed recommendations about the software’s release readiness and associated risks. Because one important evaluation activity is to “measure” the quality of the software, the progress and results of both development and testing must be measured. Collecting, analyzing, and using metrics are complicated because developers and testers often are concerned that the metrics will be used against them.

In this course, you will create your own metrics plan, establish the guidelines for developing a quality and test measurement program, identify rules of thumb for metrics information, and learn how to avoid “metrics dysfunction.” This course addresses common metrics—measures of product quality, defect removal efficiency, defect density, defect arrival rate, testing status, and more.

**The Leader’s Role in Measurement**

Providing timely and accurate quality and release readiness information to project stakeholders is one of the most important values of testing. As a byproduct of testing efforts, the team(s) and team leaders need to continually measure and report the status and quality of the products and features under development. At the same time, they should measure test effectiveness as a guide for improving testing practices. The team and its leaders must determine when to stop testing and fixing bugs—and release the product. Because a key component of testing is measuring the quality of the software product, team leaders and other key stakeholders need timely information related to the entire software development activity.

**Consulting Bonus**

As you develop your measurement and metrics plan, take advantage of one hour of virtual review and discussion with one of our expert consultants/instructors who will answer your questions and help you finalize your plan. You may schedule your consulting anytime after course purchase and beyond your 90 days of course access.

**Who Should Attend?**

This course provides foundational information on planning, selecting, and implementing metrics and measures for your team or organization. The course walks you through the creation of a measurement and metrics plan tailored to your organization. Anyone responsible for defining and reporting process and product measures for testing efforts—software and test managers; project managers; ScrumMasters; development or test leaders, those in testing roles, and QA personnel—can benefit from this course.

SQE Training recommends this class as preparation for the Advanced Tester Certification—Test Managers course and certification exam.

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Learn more and Register: [www.sqetraining.com/etqm](http://www.sqetraining.com/etqm)
ePlanning, Architecting, and Implementing Test Automation

- Develop an integrated test automation plan and architecture specifically for your organization
- Explore proven steps for assessing your current test automation state and defining a future test automation roadmap and architecture
- Get access to templates and examples you can use to draft your own test automation plan
- Leave with a draft plan and architecture that you can begin to implement

Bonus: One hour of virtual consulting services with our expert test consultant is included with this course to help you customize your plan and architecture to fit your organization situation.

To automate our tests, we often use several tools that have been developed or acquired over time, often with little attention paid to an overall plan or architecture and no consideration for how to integrate those tools. As a result, productivity suffers and frustrations increase.

In this hands-on course, the consultant/instructor shares his experiences from multiple organizations creating an integrated test automation plan and developing a test automation architecture. With a focus on both the good (engaging the technical architecture team) and the bad (too much isolation between test automators and test designers) this course is well-suited for both large and small enterprises, enabling you to communicate the real challenges and potential benefits to your stakeholders.

While several test automation frameworks will be presented and discussed, this course focuses on helping you assess your current automation state, identify gaps, and develop an automation plan and integrated tool architecture. The consultant/instructor provides you with templates and resources to help you get started on your journey toward developing a more comprehensive strategy, plan, and integrated tool architecture. The goal is for you to be able to draft a plan specific to your organization so that as you take this course, you’re getting real work done in parallel with your learning.

Learn the approaches that ensure your current test tools—and new test tools you acquire or develop—will work well with existing testing and application lifecycle software. Explore approaches qualitatively and quantitatively measuring the value of automation.

At the end of this course you will have had the opportunity to:
- Document the current state of test automation in your organization
- Define a custom test automation plan and architecture to fit your situation
- Create an initial implementation plan
- Identify initial key measures
- Develop a metrics dashboard for tracking the value of test automation
- Lay out a future strategy and roadmap to get there

Consulting Bonus
As you develop your automation plan, take advantage of one hour of review and discussion with one of our test consultants/instructors to answer questions and finalize your plan.

Who Should Attend
This course assumes you have a foundational understanding of testing and the purpose of automation. This course will be beneficial to anyone who is accountable for assessing, planning, designing, and implementing an integrated set of technology (testing infrastructure) that supports development, testing, and deployment. The content is appropriate for test automation engineering roles, test manager roles, test lead roles, test architect roles, as well as developer roles.

Learn more and Register: www.sqetraining.com/epaa

VIEW DEMO
eSelenium 2 WebDriver
With Java

Easily Learn How to Write Effective Automation Code

- An experienced practitioner teaches you to use Selenium WebDriver
- Master real-world techniques with Selenium WebDriver API
- Learn by doing with an additional six hours of self-learning exercises

Selenium WebDriver is the web automation tool of the moment, and its skills are in demand. When you understand Selenium WebDriver usage patterns, you can increase your ability to write efficient automation code.

In this course, you will learn via real world techniques associated with the Selenium WebDriver API, based on the experience of using Selenium WebDriver to automate production websites. This course focuses on the information you need to get productive with Selenium WebDriver. It does not cover Selenium IDE because you won’t use that in a production environment. The course emphasizes and demonstrates self-learning strategies so that you don’t just learn the Selenium WebDriver API in depth, you also learn how to discover more on your own.

About the Course
We have taken three days of course material and created complete video instruction. Learn from an additional six hours of self-learning exercises. Before you sign up for the course, make sure you take advantage of supplementary information provide for free. In addition to the lectures and exercises, there are also over 200 slides to aid your self-study and 4,500 lines of code to study (calculated using Metrics Reloaded). Your work will be supported as you go through the course, and if you need any additional explanation or have a question, you can ask in the comments section. We will answer and even create new videos showing the answers and then add them to the course.

When you are ready to learn Selenium WebDriver in depth, sign up and let our online video training help you.

Learn more and Register: www.sqetraining.com/esel
Satisfaction Guarantee: SQE Training is proud to offer a 100% satisfaction guarantee. We are committed to providing you with the highest quality education and training products. If we are unable to satisfy you, we will gladly refund your registration fee in full.

Public Training Policies: SQE Training reserves the right to make changes in course schedules, dates, locations, and accommodations. We will make every effort to notify students within a reasonable period of time. However, SQE Training is not responsible for personal travel, accommodations, or other incidental expenses in connection with changes to a course.

Cancellation Policy: Cancellations within twenty (20) business days of event start date are subject to a 20% cancellation fee. Cancellations within fifteen (15) business days of event start date are subject to the full training fee. For a cancellation code, please call 904.278.0524.

Register Early: The number of students per course is limited, and many courses fill to capacity. Register early to ensure your space in your preferred course.

Payment Policy: Payment is due upon registration. Seats are not confirmed until payment is received.

Forms of Payment Accepted:
- Visa, Mastercard, Discover, or American Express
- Check or company purchase order is accepted. However, payment must be received before course registration is confirmed. (Purchase orders accepted from U.S. companies only)

Confirmation: After registration has been processed, you will receive an email confirmation notice containing course details (e.g., venue details, room reservation info). Please bring a copy of the letter to the course for admittance.

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Corporate Volume Pricing
Companies needing to train teams to become proficient in a number of areas can benefit from corporate volume pricing. Let us help you build a training curriculum to suit your company’s needs.

Learn more about how easy it is to bring training to your location by contacting our On-Site Training Manager at 904.278.0524 or emailing groups@sqetraining.com.