Lucas Test Academy is a forum for current and upcoming software test and quality managers. During an 8 months part time program experienced practitioners and Lucas researchers have seminars, evaluations, and discussions on topics related to software verification and validation and software quality management.

Quantitative Quality Management
A red thread in the test academy is to derive quantitative decision support for quality management. The participants will throughout the academy sessions collect and analyze defect and time data from their own organizations, and thereby achieve decision support for quality management. The approach includes analytical and simulation modeling.

Advantages for participating companies
• A practical and tailored program for educating their test and quality managers
• A tailored simulation model over the V&V-process
• Argument for attracting talented people
• A systematic way of co-operating with Lucas
• Benchmarking of V&V-processes

Advantages for Lucas research
• A systematic way of co-operating with companies
• Generate ideas for research
• A framework for research with companies on architecture-related topics
• The LUCAS Test Academy is given as a Ph.D. course

A typical 8 month program consists of 6 sessions, each 2 days off site. The Lucas Test Academy is organized as a commissioned education. The participants receive 4points.

Sessions
1: V&V overview
- Definitions, terminology
- Unit, integration, system, acceptance
- Requirement based testing
- Test levels and techniques
- Inspection types and techniques
2: Strategies and organisation
- Test organisations
- Test strategies
  - Test driven design
  - bottom-up/top-down
3: Test management
- Test planning
- Management
  - metrics
  - simulations
- Maturity models
4: Test automation
- Test automation
  - return on investment
- Tests tools and languages
  - test frameworks
  - test management tools
  - TTCN
  - MATLAB
5: Test evaluation
- Empirical evaluation
  - test methods
  - inspection methods
6: Verification of characteristics
- Dependability
- Experiment planning
- Scheduling
- Model checking
- Safety verification

Organisation
Participation - companies
LUCAS Gold members:
• Max 6 participants per year
• Participant in steering group selecting topics
• Strong influence on case studies

LUCAS Silver members:
• Max 2 participants per year

LUCAS Bronze members:
• Max 1 participants per year

Other companies:
• Participation at the cost of 22 500 SEK (2004/2005) per participant
• Extracts from some sessions are presented as open Lucas seminars

Steering group
• LUCAS member representatives: Henrik Cosmo, SonyEricsson, Anders Levin, ABB, and Christina Lindblad, Teldrive
• Lucas steering: Per Runesson and Görel Hedén

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