QA and Certification Engineers

Training track

QA and test engineers, certification and submission managers, release managers, game studio compliance

You will be able to prepare a build for a test lab, classify a change correctly and write the tests that prove a control fails closed.

- Recommended path
- Optional, worth it
- Alternative route

DURATION	SLIDES	FORMAT	PREREQUISITES	OUTCOME	REGIONS
19.8 h of core lessons + 35 min of fixed region lessons…	**259 in lessons + 10 fixed region + 12 extension +…**	**Nine remote sessions (never more than 3.5 hours of…**	**Two years in testing, release or certification…**	**A submission pack outline and a negative test suite…**	**Two regions: one chosen, plus Ontario's lesson 13.2…**

STAGE 1 · Sessions 1-2 — Foundations and system under test

- Business, regulators, method — 1.1
- Lab: trace a game round — 1.3
- Reference platform and suppliers — 1.2

STAGE 2 · Sessions 2-3 — RNG, math and certification

- Randomness and game math — 2.1
- Certification and change control — 2.3
- Exploits and fake hacks — 2.5
- Lab: find and fix the bias — 2.2
- Design: RNG service and evidence — 2.4

STAGE 3 · Sessions 3-5 — Money and identity under test

- Wallet invariants and the ledger — 3.1
- KYC states, then the lab — 3.3
- Lab: post, park and reverse — 3.2

STAGE 4 · Sessions 5-7 — Fail-closed controls under test

- Controls, registries, then the lab — 4.1
- Data classes, the gateway, the lab — 4.3
- Location signals, then the lab — 4.2

STAGE 5 · Session 7 — Audits and release gates

- Frameworks, calendar, gates — 5.1
- DevSecOps and change control — 5.2

STAGE 6 · Sessions 7-8 — Region elective (pick one)

- Region: UK and Europe — 6.1
- Region: Latin America — 6.3
- Region: US states — 6.2
- Region: Offshore and APAC — 6.4

STAGE 7 · Session 8 — Fixed region lessons

- Region: Canada (Ontario) — 7.1

STAGE 8 · Sessions 8-9 — Track extension lessons

- Major or minor change drill — 8.1
- Negative test design workshop — 8.3
- Submission pack workshop — 8.2

QA and Certification Engineers: training track in detail

QA and test engineers, certification and submission managers, release managers, game studio compliance · as of 2026-11

Duration	19.8 h of core lessons + 35 min of fixed region lessons + 195 min of extension lessons + one region (35-120 min) + 45 min of session openings: 24.9-26.4 h in all
Slides	259 in lessons + 10 fixed region + 12 extension + 12-29 for the region: 293-310 in all
Format	Nine remote sessions (never more than 3.5 hours of contact each), or five days on site. Seven labs, taken as test design, and a test design workshop. About 6 hours of post-work for the closing task.
Prerequisites	Two years in testing, release or certification; reads Python and SQL.
Outcome	A submission pack outline and a negative test suite for four fail-closed controls.
Regions	Two regions: one chosen, plus Ontario's lesson 13.2 as the fixed outcome-based contrast.
Assessment	Closing quiz (20 questions). Labs under the 75 percent rule. Closing task: five change tickets classified with reasons and a negative test suite for one control.
Certificate	Attendance record only. Hours count toward the full program.

1. Foundations and system under test Sessions 1-2

1.1 Business, regulators, method RECOMMENDED

The business, what regulators ask for and the five-step method. QA owns the proof that a requirement is met. Lessons 1.1, 1.2 and 1.3: 110 min, 32 slides.

In the book: Ch. 01 The Online Casino Ecosystem, Ch. 05 Differences Between Betting Sites and Online Casinos, Ch. 02 Regulation and Compliance Landscape, Ch. 06 Licensing Guide, Ch. 07 Casino Implementation Planning and Timeline

1.2 Reference platform and suppliers RECOMMENDED

The components under test and the supplier integrations, each with its own certificate and version. Lessons 2.1 and 2.3: 70 min, 23 slides.

In the book: Ch. 10 Complete Platform Architecture, Ch. 01 The Online Casino Ecosystem, Ch. 10b Supplier Integration Control Plane, Ch. 09 Legal Framework and Contracts

1.3 Lab: trace a game round RECOMMENDED

Trace a round end to end. The trace becomes the template for an end-to-end test. Lesson 2.4: 70 min, 4 slides.

In the book: Ch. 10 Complete Platform Architecture, Ch. 10b Supplier Integration Control Plane

2. RNG, math and certification Sessions 2-3

2.1 Randomness and game math RECOMMENDED

What a lab checks in an RNG, then RTP and volatility and what gets certified. Lessons 4.1 and 4.2: 65 min, 22 slides.

In the book: Ch. 17 Random Number Generation (RNG), Ch. 15 Casino Mathematics and Game Economy, Ch. 34b Data Governance for iGaming Platforms

2.2 Lab: find and fix the bias RECOMMENDED

Find the bias, fix it, and write the test that proves the fix. Lesson 4.3: 60 min, 4 slides.

In the book: Ch. 17 Random Number Generation (RNG), Ch. 32 Testing and QA in Gambling

2.3 Certification and change control RECOMMENDED

Labs, stages and the GLI-19 submission, then change control for certified software. The center of this track. Lessons 4.4 and 4.5: 50 min, 19 slides.

In the book: Ch. 17 Random Number Generation (RNG), Ch. 25 GLI-GSF Compliance Framework: Online Gaming Information Security, Ch. 06 Licensing Guide, Ch. 32 Testing and QA in Gambling, Ch. 23 DevSecOps for iGaming

2.4 Design: RNG service and evidence RECOMMENDED

Design the RNG service and the evidence package. QA writes the package list. Lesson 4.6: 50 min, 5 slides.

In the book: Ch. 17 Random Number Generation (RNG), Ch. 20 Hardware Security Module Infrastructure

2.5 Exploits and fake hacks RECOMMENDED

A short case on exploits and fake hacks. The module quiz is not run in class; its bank feeds the closing quiz. Lesson 4.7: 12 min, 3 slides.

In the book: Ch. 15b Game Exploits, Fake Hacks, and the Engineering of Trust

3. Money and identity under test Sessions 3-5

3.1 Wallet invariants and the ledger RECOMMENDED

Wallet invariants and the double-entry ledger, read as test oracles: each invariant is an assertion. Lessons 3.1 and 3.2: 80 min, 24 slides.

In the book: Ch. 36 Financial Operations, Ch. 10 Complete Platform Architecture, Ch. 46 Building a Brazilian Betting Platform: Architecture, Compliance, and Implementation, Ch. 36b The Financial Truth Layer -- Ledger, Treasury, and Reconciliation

3.2 Lab: post, park and reverse RECOMMENDED

The ledger lab taken as test design. The trial balance is the assertion that must hold after every failure. Lesson 3.3: 65 min, 4 slides.

In the book: Ch. 36b The Financial Truth Layer -- Ledger, Treasury, and Reconciliation, Ch. 36 Financial Operations

3.3 KYC states, then the lab RECOMMENDED

KYC as a state machine, then state machine testing: every legal transition accepted and every illegal one rejected. Lessons 5.1 and 5.3: 95 min, 16 slides.

In the book: Ch. 24d KYC Evidence Lifecycle

4. Fail-closed controls under test Sessions 5-7

4.1 Controls, registries, then the lab RECOMMENDED

Where the player protection controls live and self-exclusion registries, then negative testing of a registry check: timeouts, stale cache, missing audit entry. Lessons 6.1, 6.2 and 6.3: 125 min, 26 slides.

In the book: Ch. 26 Responsible Gaming and Player Protection Systems, Ch. 26b Self-Exclusion Registries: From API to Audit Trail

4.2 Location signals, then the lab RECOMMENDED

Multi-signal location checks, then boundary testing: border cases and conflicting signals, and the false positives that block a legitimate player. Lessons 7.1, 7.3 and 7.6: 105 min, 19 slides.

In the book: Ch. 24e Geofencing and Location Verification, Ch. 24 Security and Compliance, Ch. 40 Case Study -- Launching in a New Regulated Market

4.3 Data classes, the gateway, the lab RECOMMENDED

Data classification and residency rules, the jurisdiction gateway, then rule testing that includes the rule nobody wrote. Lessons 8.1, 8.3 and 8.4: 140 min, 26 slides.

In the book: Ch. 27 Data Residency and Backup/Recovery, Ch. 27b The Jurisdiction Transfer Gateway and Cookie Consent, Ch. 34b Data Governance for iGaming Platforms

5. Audits and release gates Session 7

5.1 Frameworks, calendar, gates RECOMMENDED

The audits that look at testing and change records, and the calendar they run on. Lessons 9.4 and 9.5: 65 min, 22 slides.

In the book: Ch. 25 GLI-GSF Compliance Framework: Online Gaming Information Security, Ch. 24 Security and Compliance, Ch. 25b Regulatory Reporting and Evidence Export

5.2 DevSecOps and change control RECOMMENDED

The delivery pipeline of a certified environment and where QA signs. Lesson 10.2: 25 min, 10 slides.

In the book: Ch. 23 DevSecOps for iGaming, Ch. 23b DevSecOps Pipeline Implementation: From GitHub Actions to Self-Hosted GitLab CI, Ch. 24i Blue-Green Cluster Switching for iGaming Kubernetes Environments

6. Region elective (pick one) Sessions 7-8

6.1 Region: UK and Europe ALTERNATIVE

Six licences in two families: point-of-consumption markets (Great Britain, Sweden, Denmark) and hub licences (Malta, Gibraltar, Isle of Man). This track takes the lessons where the chosen region's testing, certification and audit rules are taught. Ontario's standards-based regime is added to every cohort as the contrast. Lessons 11.2 and 11.4: 85 min, 29 slides.

In the book: Ch. 06 Licensing Guide, Ch. 26 Responsible Gaming and Player Protection Systems, Ch. 26b Self-Exclusion Registries: From API to Audit Trail, Ch. 24d KYC Evidence Lifecycle, Ch. 36b The Financial Truth Layer -- Ledger, Treasury, and Reconciliation, Ch. 25b Regulatory Reporting and Evidence Export

6.2 Region: US states ALTERNATIVE

New Jersey, Pennsylvania and Michigan: a land-based partner, servers inside the state and a location check on every session. This track takes the lessons where the chosen region's testing, certification and audit rules are taught. Ontario's standards-based regime is added to every cohort as the contrast. Lessons 12.2 and 12.5: 120 min, 18 slides.

In the book: Ch. 06 Licensing Guide, Ch. 29a On-Premises Infrastructure for US-Regulated iGaming, Ch. 10 Complete Platform Architecture, Ch. 27 Data Residency and Backup/Recovery, Ch. 24e Geofencing and Location Verification

6.3 Region: Latin America ALTERNATIVE

Brazil, Colombia, Mexico and Buenos Aires. Brazil is taught as a design problem behind a legal status gate, because MP 1.394/2026 banned fixed-odds betting in September 2026. This track takes the lessons where the chosen region's testing, certification and audit rules are taught. Ontario's standards-based regime is added to every cohort as the contrast. Lessons 14.1b, 14.2 and 14.6: 115 min, 22 slides.

In the book: Ch. 46 Building a Brazilian Betting Platform: Architecture, Compliance, and Implementation, Ch. 02 Regulation and Compliance Landscape, Ch. 06 Licensing Guide, Ch. 27 Data Residency and Backup/Recovery, Ch. 29f Latin America Datacenter Infrastructure for Regulated Gaming

6.4 Region: Offshore and APAC ALTERNATIVE

Curacao under the LOK and the Philippines under PAGCOR, where the roadmap reports new operator accreditations frozen and the partner route as the open one. This track takes the lessons where the chosen region's testing, certification and audit rules are taught. Ontario's standards-based regime is added to every cohort as the contrast. Lesson 15.1: 35 min, 12 slides.

In the book: Ch. 06 Licensing Guide, Ch. 29e Datacenter Infrastructure for Africa and Offshore Jurisdictions

7. Fixed region lessons Session 8

7.1 Region: Canada (Ontario) RECOMMENDED

Ontario: registration with the AGCO, an operating agreement with iGaming Ontario, and standards written as outcomes. Lesson 13.2: 35 min, 10 slides.

In the book: Ch. 25 GLI-GSF Compliance Framework: Online Gaming Information Security, Ch. 26b Self-Exclusion Registries: From API to Audit Trail, Ch. 24e Geofencing and Location Verification

8. Track extension lessons Sessions 8-9

8.1 Major or minor change drill OPTIONAL

Ten change tickets to classify in pairs, with reasons, against the Gambling Commission's testing strategy as the worked example. Ten tickets at 2.5 minutes each left no debrief, so the drill runs 45 minutes. The debrief compares answers and shows which ones an annual games testing audit would question. Shared by the QA and the SRE tracks. Paper exercise: ten change tickets. Not built yet; estimate 45 min, 3 slides (case study).

In the book: Ch. 25 GLI-GSF Compliance Framework: Online Gaming Information Security, Ch. 32 Testing and QA in Gambling, Ch. 23 DevSecOps for iGaming

8.2 Submission pack workshop OPTIONAL

Teams list what goes to the lab for one game and one platform change: source and build hash, math sheets, test results, version history, open issues. It follows the lab workflow from first inquiry to final report. Runs an hour so the lists can be compared. Not built yet; estimate 60 min, 4 slides (whiteboard design).

In the book: Ch. 17 Random Number Generation (RNG), Ch. 25 GLI-GSF Compliance Framework: Online Gaming Information Security, Ch. 32 Testing and QA in Gambling

8.3 Negative test design workshop OPTIONAL

Teams write a negative test suite for four fail-closed controls (registry, location, gateway, KYC) as pytest cases against the services of the Module 06, 07 and 08 labs. The outcome is a test suite, and no earlier lesson built one. Lab environment W23-negative-test-design. Not built yet; estimate 90 min, 5 slides (whiteboard design).

In the book: Ch. 26b Self-Exclusion Registries: From API to Audit Trail, Ch. 24e Geofencing and Location Verification, Ch. 27 Data Residency and Backup/Recovery

Common pitfalls

- Testing only the happy path of a control whose whole point is what happens on failure.
- Calling a change minor to keep a date, then having the annual audit reclassify it.
- Sending the lab a build that cannot be rebuilt to the same hash.
- Assuming one lab report covers every jurisdiction without checking each regulator's accepted standards.

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- Planning a career path around the ISTQB gambling tester certificate, which ISTQB says it will retire on 1 January 2027.

Sources

1. UK Gambling Commission, testing strategy for remote gambling and software technical standards, summary
   https://www.gamblingcommission.gov.uk/strategy/testing-strategy-for-compliance-with-remote-gambling-and-software-technical/1-summary
2. GLI, iGaming Workshops
   https://gaminglabs.com/services/igaming/igaming-workshops/
3. GLI University training
   https://gaminglabs.com/services/gli-university-training/
4. ISTQB, Certified Tester Gambling Industry Tester (CT-GT)
   https://istqb.org/certifications/certified-tester-gambling-industry-tester-ct-gt/
5. AGCO, Registrar's Standards for Internet Gaming (full text)
   https://agco.ca/en/book/export/html/245361

Companion to *The Backend of Luck* and its jurisdiction roadmaps. Hours and slide counts come from the lesson tables in the training plan.