

**CERTLABZ****CERTIFICATION BOARD****CGMD-001**

Certified Game Developer (CGMD)

Exam Objectives **CGMD-001**

About the exam

Item	Detail
Level	Advanced
Number of questions	120. A performance-based exam: each form can carry up to 5 to 12 performance-based questions alongside the multiple-choice questions.
Delivery model	Computer adaptive in 3 stages of 42, 39, 39 questions. Your score on each stage selects the difficulty of the next, so no two candidates sit the same paper.
Time limit	180 minutes
Scoring	You need a score of 700 out of 900 to pass. Results are reported on a scale of 100 to 900, and 700 corresponds to answering 72% of the exam correctly. Harder questions carry more weight, so a score means the same thing on any route. Multiple-response items and PBQs are scored all or nothing.
Delivery	Online, fully proctored (webcam, microphone and screen).
Prerequisites	No formal prerequisite. Candidates do best with hands-on programming or game experience and 40 to 60 hours of study.
Retakes	No waiting period after a failed first attempt. Candidates pay the exam price each time they attempt the exam. See the CertLabz Certification Retake Policy at certlabz.com/certification-retake-policy.html
Validity	3 years. Renew with 75 CEUs per cycle and the \$55 annual continuing-education fee, or by passing the current exam.
Language	English
Exam voucher	\$199 for one sitting, valid 12 months. Bundles add the study guide ebook and the All Access plan.

Domain weights

Domain	Questions
D1 Game Development Foundations (16%)	19
D2 Game Design and Mechanics (16%)	19
D3 Graphics and Rendering (17%)	21

D4 Physics and Animation (17%)

	21
D5 Gameplay Programming (17%)	20
D6 Optimization, Testing and Release (17%)	20
Total (100%)	120

Objectives by domain

Each objective may appear as knowledge, a scenario to judge, a circuit to trace or assemble, or a number to compute. Each form can carry up to 5 to 12 performance-based questions: drag-and-drop matching, sequencing and table completion, drawn fresh each attempt. The exam does not test any vendor's SDK syntax.

D1 Game Development Foundations

16% 19 questions

- D1.1 What game development is
- D1.2 Engines and tools
- D1.3 The game loop
- D1.4 Platforms
- D1.5 Pipelines
- D1.6 Key terms

D2 Game Design and Mechanics

16% 19 questions

- D2.1 Core mechanics
- D2.2 Systems design
- D2.3 Levels
- D2.4 Balancing
- D2.5 Player experience
- D2.6 Prototyping

D3 Graphics and Rendering

17% 21 questions

- D3.1 Rendering pipeline
- D3.2 Meshes and materials
- D3.3 Lighting and shaders
- D3.4 Textures
- D3.5 Cameras
- D3.6 Performance

D4 Physics and Animation

17% 21 questions

- D4.1 Physics engines
- D4.2 Collisions
- D4.3 Rigidbodies
- D4.4 Animation systems
- D4.5 State machines
- D4.6 Timing

D5 Gameplay Programming

17% 20 questions

- D5.1 Input handling
- D5.2 Entity and component systems
- D5.3 AI basics
- D5.4 Save and state
- D5.5 Networking basics
- D5.6 Audio

D6 Optimization, Testing and Release

17% 20 questions

- D6.1 Profiling
- D6.2 Memory and frame budget
- D6.3 Testing and QA
- D6.4 Builds
- D6.5 Store submission
- D6.6 Live operations

Continuing education

Renewal	Requirement
Validity	3 years from the date of issue
CEUs required per cycle	75
Annual CE fee	\$55
Alternative to CEUs	Pass the current version of the exam before the expiry date

Qualifying activities

Activity	CEUs
CertLabz labs, PBQs, courses and SkillTracker assessments	1 CEU per hour, up to 25 per cycle
Other industry certifications earned or renewed	10 to 25 each, depending on level
Conferences, webinars and training	1 CEU per hour, up to 20 per cycle
Game development or software work experience	3 per year, up to 9 per cycle
Teaching, mentoring, publishing or community contributions	Up to 15 per cycle
College courses in computing or design	10 per completed course

CertLabz Certification Retake Policy

- **No waiting period after a failed first attempt:** If you fail your first attempt at any CertLabz certification examination, CertLabz does not require any waiting period between the first and second attempt.

- **Once you pass, you cannot resit the same exam code:** A candidate who has passed an exam and achieved a certification cannot take that exam again under the same exam code without prior consent from CertLabz. You will need to wait until a new series of the exam is published before attempting to recertify by examination.

- **Beta examinations, one attempt only:** A CertLabz beta examination may be taken one time by each candidate.

- **Violations invalidate the attempt:** A test found to be in violation of this policy will be invalidated, and the candidate may be subject to a suspension period. Repeat violators will be permanently banned from the CertLabz Certification Program.

- **Every attempt is paid for:** Candidates must pay the exam price each time they attempt the exam. CertLabz does not offer free retests or discounts on retakes.

Published by the CertLabz Certification Board, a division of CertLabz LLC. Objectives document CGMD-001.
<https://certlabz.com/certifications/certified-game-developer.html>