



Certified Autonomous Systems Professional (CAUP)

Exam Objectives CAUP-001

About the exam

Item	Detail
Level	Beginner
Number of questions	60. 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 22, 19, 19 questions. Your score on each stage selects the difficulty of the next, so no two candidates sit the same paper.
Time limit	90 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 some hands-on exposure to robotics, automation or software and 20 to 40 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 35 CEUs per cycle and the \$25 annual continuing-education fee, or by passing the current exam.
Language	English
Exam voucher	\$99 for one sitting, valid 12 months. Bundles add the study guide ebook and the All Access plan.

Domain weights

Domain	Questions
D1 Autonomous Systems Foundations (16%)	10

D2 Perception and Sensing (16%)

	10
D3 Localization and Mapping (17%)	10
D4 Path Planning and Navigation (17%)	10
D5 Decision Making and Control (17%)	10
D6 Safety, Testing and Ethics (17%)	10
Total (100%)	60

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 Autonomous Systems Foundations

16% 10 questions

- D1.1 What autonomy is
- D1.2 Levels of autonomy
- D1.3 System architecture
- D1.4 Sense plan act
- D1.5 Use cases
- D1.6 Key terms

D2 Perception and Sensing

16% 10 questions

- D2.1 Cameras
- D2.2 Lidar and radar
- D2.3 Sensor fusion
- D2.4 Object detection
- D2.5 Segmentation
- D2.6 Calibration

D3 Localization and Mapping

17% 10 questions

- D3.1 Odometry
- D3.2 GPS and INS
- D3.3 SLAM basics
- D3.4 Maps and grids
- D3.5 Pose estimation
- D3.6 Loop closure

D4 Path Planning and Navigation

17% 10 questions

- D4.1 Global planning
- D4.2 Local planning
- D4.3 Obstacle avoidance
- D4.4 Cost maps
- D4.5 Route optimization
- D4.6 Replanning

D5 Decision Making and Control

17% 10 questions

- D5.1 Behavior planning
- D5.2 State machines
- D5.3 Motion control
- D5.4 Actuation
- D5.5 Prediction
- D5.6 Handling uncertainty

D6 Safety, Testing and Ethics

17% 10 questions

- D6.1 Safety cases
- D6.2 Fail-safe design
- D6.3 Simulation testing
- D6.4 Validation
- D6.5 Ethics and bias
- D6.6 Regulations

Continuing education

Renewal	Requirement
Validity	3 years from the date of issue
CEUs required per cycle	35
Annual CE fee	\$25
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
Autonomous systems, robotics or controls work experience	3 per year, up to 9 per cycle
Teaching, mentoring, publishing or community contributions	Up to 15 per cycle
College courses in engineering or computing	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.

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<https://certlabz.com/certifications/certified-autonomous-systems-professional.html>