



Certified Professional for Requirements Engineering

Expert Level

Examination Regulations

1 Examination Regulations

This document governs the certification examinations for Certified Professional for Requirements Engineering – Expert Level.

1.1 Preface

The Certified Professional for Requirements Engineering – Expert Level certificate is aimed to certify that the applicant has thorough theoretical and practical knowledge and experience in the field of Requirements Engineering.

A CPRE Expert is a person that has superior knowledge and skills in Requirements Engineering. In addition to theoretical knowledge, competence in its application, i.e., practical application knowledge, is also a characteristic of a Requirements Engineering expert.

2 Examination prerequisites

To apply for the Certified Professional for Requirements Engineering – Expert Level certificate, the applicant has to fulfil the following prerequisites:

A - Other Requirements Engineering Certifications

He or she has successfully passed at least three Certified Professional for Requirements Engineering Specialist / Advanced Level exams.^{1,2}

Up to two CPRE Specialist / Advanced Level certificates can be substituted by other forms:

1. One Certified Professional for Requirements Engineering Specialist / Advanced Level certificate can be substituted by another professional Requirements Engineering qualification that has been passed with a qualified exam.

Typical examples of such professional Requirements Engineering qualifications are university lecture courses with at least four ECTS points or an equivalent number of hours³. The subject of the lecture course must be clearly related to Requirements Engineering. An ordinary Software Engineering lecture is not sufficient.

Seminars or training courses might be a valid substitute, if they lasted at least three days and have been successfully completed with a qualified (certification) exam. A confirmation of attendance only is not sufficient.

Amongst others, accepted training courses include

- UXQB Advanced Level "User Requirements Engineering (CPUX-UR)"
- BCS "International Diploma in Business Analysis"
- IIBA "Certification of Capability in Business Analysis CCBA" or higher

2. One Certified Professional for Requirements Engineering Specialist / Advanced Level certificate can be substituted by a **substantial publication** in the Requirements Engineering area. Substantial publications are:

- Papers in renowned peer-reviewed conferences (like RE, REFSQ, ICSE) or journals (like the Requirements Engineering Magazine)
- Textbooks or book chapters (with ISBN, published by a renowned publisher)
- Final works to achieve a master's degree or Ph.D.

¹ The term "Advanced Level" refers to the CPRE Advanced Level (up to June 30, 2022)

² The REQB Advanced Level Certificate is treated as a CPRE Specialist or CPRE Advanced Level Certificate.

³ An ECTS point equals approximately 25 to 30 working hours.

If a paper, textbook, or textbook chapter is authored by more than one person, the applicant has to explain his or her contribution to the publication which should be substantial.

B - Practical Experience

He or she has thorough practical experience in Requirements Engineering and has been active as a Requirements Engineer in various roles in several projects for a period equivalent to at least three years of full-time employment.

C - Other activities in Requirements Engineering

He or she has been active in training or coaching others in the Requirements Engineering field. Training or coaching might have been performed giving (in-house) training, being active as an (in-house) consultant, giving lectures at universities, advising final works in a master's degree, or similar activities.

3 The exam

The examination consists of three parts

- Part 1: Written application (see Section 4)
- Part 2: Written assignment (see Section 5)
- Part 3: Oral examination (see Section 6)

3.1 Conditions for passing the examination

The examination is considered passed when all three parts of the examination are passed, i.e., each part of the examination must be passed, independently of the other.

Passing part 1 is a prerequisite for participation in part 2; passing part 2 is a prerequisite for participation in part 3.

4 Written application

An applicant who wants to apply for the Certified Professional for Requirements Engineering Expert Level has to hand in a written application demonstrating that he or she fulfils the necessary prerequisites according to Section 2. The application consists of three parts:

A - Proof of thorough knowledge in Requirements Engineering

Here, three Certified Professional for Requirements Engineering Specialist / Advanced Level certificates have to be included. According to Section 2, paragraph A, up to two Specialist / Advanced Level certificates can be substituted. In the case of substitution, proper proofs have to be incorporated:

- Lectures, seminars, trainings: Confirmed exam (certificate) and a confirmed summary of the lectures', seminars', or training courses' content and amount (e.g., ECTS points).
- Papers in journals or conference proceedings: Fully qualified reference⁴ and a copy of the publication.
- Textbooks or book chapters: Fully qualified reference⁴ and a copy of the publication.
- Final works to achieve a master's degree or Ph.D.: A copy of the final work along with a confirmed evaluation of the work.

In case of doubt, the applicant may ask IREB by mail to info@ireb.org for a provisional assessment whether a lecture, seminar or publication is a proper substitute for one of the requested Certified Professional for Requirements Engineering Specialist / Advanced Level certificates before submitting the written application. This provisional assessment by IREB is not binding, but might help the applicant to identify insufficient substitutes.

B - Proof of practical experience in Requirements Engineering

Here, the applicant has to provide a detailed overview of his or her practical work in the Requirements Engineering field by commenting on projects where he or she participated. The summary should clearly state:

- Which role had the applicant in the projects?
- How much Requirements Engineering related effort had been spent in the projects?
- Which Requirements Engineering related activities did the applicant perform in the projects?

The overview shall be accompanied by suitable proofs, like an employer's confirmation. The length of the overview shall be between two and four pages. If the applicant has participated in many projects, he or she shall elaborate on four projects in detail and provide a short overview only of the others.

⁴ If the publication is authored by more than one person, the applicant has also to provide a written explanation on his or her contribution to the publication.

C - Proof of training or coaching experience in Requirements Engineering

Here, the applicant has to provide a detailed overview of his or her training and coaching activities. The overview should clearly state:

- Who has been trained by the applicant?
- With which Requirements Engineering related subject was the training or coaching concerned?
- Which form of training or coaching had been used?
- How many hours did the training or coaching involve?

The description shall not exceed one page.

For B) and C), IREB cannot provide a provisional assessment prior to the submitted written application.

4.1 Language

The written application has to be provided in English.

4.2 Submission

The written application has to be handed in, along with all proofs, as a single PDF file to the certification body.

During the evaluation of the written application the applicant has to be prepared to answer inquiries by the certification body and to provide additional material or proofs if required.

4.3 Notification of results

After evaluation of the written application, the applicant receives a written evaluation of his or her application.

4.4 Appeal

If the applicant does not fulfil the prerequisites sufficiently, the applicant may appeal against the evaluation within one month of notification of the evaluation result: he or she must justify this in writing within the aforementioned deadline. This will result in a re-evaluation of the original written application. Additional proofs or material that is passed together with the written appeal will not be considered. The result of the re-evaluation is binding and cannot be challenged further.

5 Written assignment

The aim of the written assignment is to demonstrate that the applicant has in-depth know-how in the field of Requirements Engineering, is able to provide an appropriate and suitable argumentation on a given Requirements Engineering related statement, and is able to relate the statement to his or her practical observations and experience.

Along with the evaluation of the written application, the applicant will receive the detailed instructions on the written assignment and the statement the applicant has to work on in the written assignment.

5.1 Document format

The written assignment has a minimum of 10 and a maximum of 20 A4 pages. (font: 11pt, margin: 2.5 cm, single spaced).

5.2 Language

The written assignment has to be provided in English⁵ and adhere to common standards in scientific writing.

5.3 Requirements for the written assignment

In the written assignment, the applicant has to discuss the given statement and provide arguments for his or her opinion on the statement. The arguments shall be backed-up with observations and experience gained in his or her projects⁶. Additionally, the opinion shall explicitly be backed up with literature references. It shall become clear that the applicant is able to reflect on the implications of his or her opinion on real-world Requirements Engineering activities, that the applicant has some intuition about the scope and limitations of his or her opinion, and that the applicant is aware of the state of the art reflected by up-to-date literature.

The written assignment must be original work performed by the examination candidate (i.e., without outside help, including generative AI), using only the literature and tools stated by the examination candidate according to generally accepted scientific criteria.

⁵ See also Section 7.4

⁶ Statements like "according to my experience" are not sufficient. It is necessary to provide some background to the projects and the observed situation.

5.4 Submission of the written assignment

The written assignment has to be handed in to the certification body as a PDF file within a maximum of six months after receiving the instructions for the written assignment. If the written assignment is not handed in within this period, this part of the exam is failed. For an extension of the submission period see Section 7.1.

In addition to the written assignment, a declaration of the independent creation of the written assignment, using only the literature and tools stated, has to be submitted. The declaration must be either signed by hand or with a valid electronic signature, and submitted as a PDF document. Signing by inserting a scanned signature is not permitted.

5.5 Assessment

After evaluation of the written assignment by at least two IREB assessors, the applicant receives a written evaluation of his or her assignment.

In case of serious violations against this, particularly plagiarism, the written assignment will be scored with 0 points and the candidate failed. In addition, the candidate is excluded for a period of 3 years from all CPRE-examinations.

The written assignment can be passed or failed or the applicant is requested to rework the assignment within a three-month period. If the written assignment is not handed in within this period, this part of the exam is failed. For an extension of the submission period see Section 7.1.

When submitting a revised assignment, the applicant has to enclose a response to reviewers where he or she describes how the issues raised by the reviewers have been addressed in the revision.

5.6 Notification of results

Written notification of the examination results will be sent by the certification body.

5.6.1 Review and appeal

Review

Any applicant who fails a written assignment may apply to the certification body for access to the assessment materials relating to the assignment.

Appeal

Applicants who fail an assignment have a right to submit a written objection to an assignment grade within one month of notification of the grade awarded for the assignment. Objections must be justified in writing within two months of notification of the assignment grade. Only factual objections (such as violations of examination regulations or factual errors

in the assessment) will be considered. Objections based on opinions (such as “The reviewers should have considered the argument I gave on page 3 to a larger extent.”) will be rejected.

The certification body will assess compliance with the formal requirements for submitting and justifying an objection to an assignment grade and may reject the objection as non-admissible in the event of any breach of the deadline for submitting and/or justifying an objection. If all requirements have been met, the certification body will forward the reasons for the objection to the IREB assessors who reviewed the assignment. The IREB assessors will assess the objection and submit a written opinion in that respect. The opinion will confirm the assessment or provide a new assessment, which shall be final and binding and cannot be challenged further.

5.7 Additional agreement

IREB is entitled to ask the applicant for a statement of permission to use the written assignment for IREB purposes (e.g., on the IREB website).

6 Oral examination

The oral examination takes 90 minutes plus 120 minutes for preparation and comprises three parts:

- Part 1: Case–Study
- Part 2: Questions on Requirements Engineering in the context of the applicant’s projects
- Part 3: General questions on Requirements Engineering

Each of the three parts of the oral exam last approx. 30 minutes.

If the applicant does not show up at the fixed examination date the oral examination is failed. In case of a serious illness proven by medical certificate, the oral examination can be re-scheduled. The request must be made in writing and justified accordingly. IREB has the right to check the medical certificate and information provided. If the medical certificate or information is verifiably false, the applicant will be excluded from the examination.

6.1 Language

The oral examination is held in English⁷.

6.2 Part 1: Case-Study

In the first part of the oral examination, the applicant has to present his or her suggestions on a given case. The case description is given to the applicant two hours prior to the oral exam (preparation time). The case will describe a specific project situation. Here, the applicant has to show that he or she is able to

- analyse a complex, Requirements Engineering related situation,
- identify relevant issues,
- make meaningful suggestions to handle and improve the situation at hand.

It is expected that the applicant first gives a 10–15 min presentation on the given case followed by a 15–20 min discussion with the examiners. The presentation can be completely oral or accompanied by a presentation, if needed. The presentation has to be created during the two-hour preparation.

⁷ See also Section 7.4

6.3 Part 2: Questions on Requirements Engineering in the context of the applicant's projects

In the second part of the oral exam, the applicant has to answer questions in the context of the projects he or she has described in the application. The aim of this part of the oral exam is to verify his or her deep understanding of Requirements Engineering in practice.

6.4 Part 3: General questions on Requirements Engineering

In the third part of the oral exam, the applicant has to answer general questions on Requirements Engineering. The aim of this part of the oral exam is to verify the depth of the applicant's knowledge in Requirements Engineering.

6.5 Oral examination procedure

The examiners in an oral exam will be at least two IREB assessors. During all parts of the oral examination, the applicant is not allowed to communicate with any person other than the staff of the certification body and the IREB examiners. The applicant may use any material including material found when searching and browsing documents on the internet during the preparation time.

The two-hour preparation time is strict and starts at the time mentioned on the invitation for the oral examination. Late arrivals are at the applicant's own cost.

Oral examinations are held either in a face-to-face meeting or in a video conference at a dedicated place that is determined by IREB⁸. The oral exam has to be conducted within 12 months of receiving notification of passing the written assignment. After that period, the previous achievements (passed application, passed written assignment) are invalid and the applicant has to start again.

6.6 Notification of results

Upon completion of the oral examination, the examiners shall have an internal consultation regarding the result. Thereafter, the applicant gets immediate feedback whether he or she has passed the oral examination or not.

⁸ Usually, video conferences are located at an office of an IREB certification body who takes care for the proper video conference infrastructure.

6.7 Appeal

In case of a negative result, the applicant is entitled to submit a written objection within one week of notification of the result; objections are restricted to faults of the formal examination procedure and must be justified in writing within this deadline.

7 General rules

7.1 Extensions of deadlines

Due to special circumstances, in justified individual cases, the fixed time limits set for certain deliveries can be extended one time upon request. The request must be made, within the prescribed completion time, in writing and justified accordingly. IREB has the right to check the information. If the information is verifiably false, the applicant will be excluded from the examination.

Special circumstances in the sense of the previous paragraph are strictly restricted to important reasons in the personal environment of the participant, such as serious illness or care dependency or death of a close relative. Operational issues, such as deadline pressure in important projects or high workload are not special circumstances; this corresponds to everyday work and has to be considered by the applicant.

The above provisions do not apply in case of deadlines for objections and justifications for objections.

7.2 Re-application after non-passing

When not passing one of the three steps of the expert level examination, i.e., written application, written assignment, and oral exam, the complete exam may be repeated. A re-application is not possible within one year after the notification of failing a certain step in the examination procedure.

7.3 Anonymity and confidentiality of the contents of the written assignment

Since the application calls for a summary of projects with which the applicant has been involved, this could lead to a conflict with confidentiality obligations. To avoid this, the contents of the project summary are to be made as anonymous as necessary, so that no confidential information is part of the written application.

All persons and institutions involved in the examination are obliged to treat the contents of the written application as confidential and not disclose these to third parties. The ultimate responsibility for the contents of the written assignment and their dissemination lies solely with the applicant. He or she must ensure already when writing the assignment, not to violate any confidentiality obligations their employer, principals, or customers.

IREB and other persons and institutions involved in the examination accept no liability for damages or claims arising from a breach of the duty of confidentiality. When applicants are uncertain whether they violate their particular confidentiality obligations through the contents of their written application, they should contact their employers, principals, or customers prior to the submission of their written application.

7.4 Other exam languages

The default language for all three exam parts (written application, written assignment, oral examination) is English.

The applicant may ask for a different exam language than English for the written assignment and/or the oral examination. In this case, IREB will check if there is the possibility to offer another language. However, this depends on the availability of highly-skilled IREB examiners, so there is no right for examination in another language than English.

The written application has always to be provided in the English language.

7.5 Miscellaneous

If there are other special requests (e.g., local restrictions on the place for the oral exam), the applicant shall either mention them upfront, i.e., before handing in the written application, or along with the written application. A justification shall be passed along with the special request. IREB will check the special requests and try to take them into consideration. However, there is no right that special requests can be satisfied.