

Curriculum for

Certified Professional for
Software Architecture (CPSA)[®]
Advanced Level

**Module
ARCEVAL**

Architecture Evaluation

Version 2015.1-EN; September 2, 2020



Table of Contents

List of Learning Goals	2
Introduction: General information about the iSAQB Advanced Level	3
What is taught in an Advanced Level module?	3
What can Advanced Level (CPSA-A) graduates do?	3
Requirements for CPSA-A certification	3
Essentials	4
What does the module “ARCEVAL” convey?	4
Curriculum Structure and Recommended Durations	4
Duration, Teaching Method and Further Details	5
Prerequisites	5
Structure of the Curriculum	5
Supplementary Information, Terms, Translations	6
1. This is the First Module’s Title	7
1.1. Terms and Principles	7
1.2. Learning Goals	7
1.3. References	7
2. Here’s the Title of the Second Lesson	8
2.1. Terms and Principles	8
2.2. Learning Goals	8
2.3. References	8
3. The Third Module’s Title	9
3.1. Terms and Principles	9
3.2. Learning Goals	9
3.3. References	9
4. Fourth Module, This is its Title	10
4.1. Terms and Principles	10
4.2. Learning Goals	10
4.3. References	10
5. And This is Module no 5.	11
5.1. Terms and Principles	11
5.2. Learning Goals	11
5.3. References	11
6. Examples	12
6.1. Terms and Principles	12
6.2. Learning Goals	12
6.3. References	12
References	13

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List of Learning Goals

- LG 1-1: The is the first learning goal, in category xy
- LG 2-1: TBD
- LG 2-2: TBD
- LG 3-1: TBD
- LG 3-2: TBD
- LG 4-1: TBD
- LG 4-2: TBD
- LG 5-1: TBD
- LG 5-2: TBD
- LG 98-1: Last learning goal of the curriculum

Introduction: General information about the iSAQB Advanced Level

What is taught in an Advanced Level module?

- The iSAQB Advanced Level offers modular training in three areas of competence with flexibly designable training paths. It takes individual inclinations and priorities into account.
- The certification is done as an assignment. The assessment and oral exam is conducted by experts appointed by the iSAQB.

What can Advanced Level (CPSA-A) graduates do?

CPSA-A graduates can:

- Independently and methodically design medium to large IT systems
- In IT systems of medium to high criticality, assume technical and content-related responsibility
- Conceptualize, design, and document actions to achieve quality requirements and support development teams in the implementation of these actions
- Control and execute architecture-relevant communication in medium to large development teams

Requirements for CPSA-A certification

- Successful training and certification as a Certified Professional for Software Architecture, Foundation Level® (CPSA-F)
- At least three years of full-time professional experience in the IT sector; collaboration on the design and development of at least two different IT systems
 - Exceptions are allowed on application (e.g., collaboration on open source projects)
- Training and further education within the scope of iSAQB Advanced Level training courses with a minimum of 70 credit points from at least three different areas of competence
 - existing certifications (for example: Sun/Oracle Java architect, Microsoft CSA) can be credited upon application
- Successful completion of the CPSA-A certification exam



Essentials

What does the module “ARCEVAL” convey?

The module presents ARCEVAL to the participants ... At the end of the module, the participants know ... and are able to ...

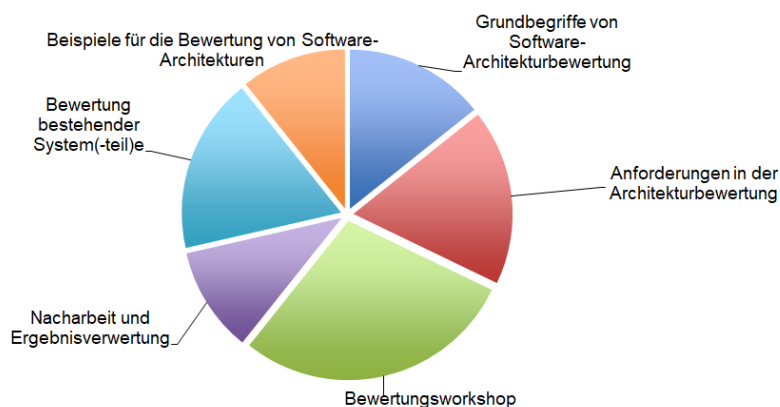


Hier bitte das Modul bzw. dessen Lerninhalte zusammenfassend in 5-8 Sätzen beschreiben. Dabei **Architecture Evaluation** nicht entfernen, beim Zusammenbauen wird dieser Platzhalter mit dem Modulnamen ersetzt.

Curriculum Structure and Recommended Durations

Content	Recommended minimum duration (minutes)
1. Introduction	180
2. xz	150
3. Lots of theory	120
4. xy and example	180
5. abc und d	210
6. Final example	120
Total	960 (16h)

Allocation of time for the topic areas



Bitte sowohl die oben angegebene Tabelle als auch das beiliegende Excel-Dokument entsprechend anpassen und das Pie-Chart als "zeitaufteilung.png" nach `../images/01-basics` exportieren



== =

Please adjust the table above as well as the excel document according to your curriculum and export the pie chart as "chronological_breakdown.png" to `../images/01-basics`.



Bitte die ? durch die Anzahl der Tage sowie die erreichbaren Punkte ersetzen.

Duration, Teaching Method and Further Details

The times stated below are recommendations. The duration of a training course on the ARCEVAL module should be at least 2 days, but may be longer. Providers may differ in terms of duration, teaching method, type and structure of the exercises and the detailed course structure. In particular, the curriculum provides no specifications on the nature of the examples and exercises.

Licensed training courses for the ARCEVAL module contribute the following credit points towards admission to the final Advanced Level certification exam:

Methodical Competence:	20 Points
Technical Competence:	0 Points
Communicative Competence:	0 Points

Prerequisites

Participants **should** have the following prerequisite knowledge:

- Prerequisite 1
- Prerequisite 2, etc.

Knowledge in the following areas may be **helpful** for understanding some concepts:

- Area 1:
 - Knowledge 1
 - Experience 2
 - Knowledge 3
 - Experience 4
 - Understanding 5



Kenntnisgruppen sowie Voraussetzungen bitte entsprechend ausformulieren!

Structure of the Curriculum

The individual sections of the curriculum are described according to the following structure:

- **Terms/principles:** Essential core terms of this topic.
- **Teaching/practice time:** Defines the minimum amount of teaching and practice time that must be spent on this topic or its practice in an accredited training course.
- **Learning goals:** Describes the content to be conveyed including its core terms and principles.

This section therefore also outlines the skills to be acquired in corresponding training courses.

Supplementary Information, Terms, Translations

To the extent necessary for understanding the curriculum, we have added definitions of technical terms to the [iSAQB glossary](#) and complemented them by references to (translated) literature.

1. This is the First Module's Title

Duration: XXX min

Practice time: XXX min

1.1. Terms and Principles

Term 1, Term 2, Term 3



Überschrift in 00-structure.adoc ersetzen



Sinnvolle Zeiten für Dauer und Übungszeit eintragen, vernünftige Begriffe aufzählen.

1.2. Learning Goals

LG 1-1: The is the first learning goal, in category xy

tbd.



Die einzelnen Lernziele müssen nicht als einfache Aufzählungen mit Unterpunkten aufgeführt werden, sondern können auch gerne in ganzen Sätzen formuliert werden, welche die einzelnen Punkte (sofern möglich) integrieren.

1.3. References

[Clements+2002], [Kazman+2000], [Bachmann+2000], [Bass+2003], [Clements+2003], [Kruchten 1995], [Starke 2011]



Eine Quelle wird über `[label]` referenziert. Dieses muss in `99-references/00-references.adoc` definiert sein.

== =

A reference source is referenced via `[label]`. The label has to be defined in `99-references/00-references.adoc`.

2. Here's the Title of the Second Lesson

Duration: XXX min

Practice time: XXX min

2.1. Terms and Principles

Term 1, Term 2, Term 3



Überschrift in 00-structure.adoc ersetzen



Sinnvolle Zeiten für Dauer und Übungszeit eintragen, vernünftige Begriffe aufzählen.

2.2. Learning Goals

LG 2-1: TBD

tbd.

LG 2-2: TBD

tbd.



Die einzelnen Lernziele müssen nicht als einfache Aufzählungen mit Unterpunkten aufgeführt werden, sondern können auch gerne in ganzen Sätzen formuliert werden, welche die einzelnen Punkte (sofern möglich) integrieren.

2.3. References

[Bass+2003], [Clements+2002], [Kazman+2005], [Barbacci+2003], [Starke 2011]



Eine Quelle wird über `[label]` referenziert. Dieses muss in `99-references/00-references.adoc` definiert sein.

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A reference source is referenced via `[label]`. The label has to be defined in `99-references/00-references.adoc`.

3. The Third Module's Title

Duration: XXX min

Practice time: XXX min

3.1. Terms and Principles

Term 1, Term 2, Term 3



Überschrift in 00-structure.adoc ersetzen



Sinnvolle Zeiten für Dauer und Übungszeit eintragen, vernünftige Begriffe aufzählen.

3.2. Learning Goals

LG 3-1: TBD

tbd.

LG 3-2: TBD

tbd.



Die einzelnen Lernziele müssen nicht als einfache Aufzählungen mit Unterpunkten aufgeführt werden, sondern können auch gerne in ganzen Sätzen formuliert werden, welche die einzelnen Punkte (sofern möglich) integrieren.

3.3. References

[Clements+2002], [Bass+2003], [Kazman+2000], [Nord+2003], [Kazman+2005], [Starke 2011]



Eine Quelle wird über `[label]` referenziert. Dieses muss in `99-references/00-references.adoc` definiert sein.

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A reference source is referenced via `[label]`. The label has to be defined in `99-references/00-references.adoc`.

4. Fourth Module, This is its Title

Duration: XXX min

Practice time: XXX min

4.1. Terms and Principles

Term 1, Term 2, Term 3



Überschrift in 00-structure.adoc ersetzen



Sinnvolle Zeiten für Dauer und Übungszeit eintragen, vernünftige Begriffe aufzählen.

4.2. Learning Goals

LG 4-1: TBD

tbd.

LG 4-2: TBD

tbd.



Die einzelnen Lernziele müssen nicht als einfache Aufzählungen mit Unterpunkten aufgeführt werden, sondern können auch gerne in ganzen Sätzen formuliert werden, welche die einzelnen Punkte (sofern möglich) integrieren.

4.3. References

[Clements+2002], [Bass+2003], [Bass+2006], [Starke 2011]



Eine Quelle wird über `[label]` referenziert. Dieses muss in `99-references/00-references.adoc` definiert sein.

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A reference source is referenced via `[label]`. The label has to be defined in `99-references/00-references.adoc`.

5. And This is Module no 5

Duration: XXX min

Practice time: XXX min

5.1. Terms and Principles

Term 1, Term 2, Term 3



Überschrift in 00-structure.adoc ersetzen



Sinnvolle Zeiten für Dauer und Übungszeit eintragen, vernünftige Begriffe aufzählen.

5.2. Learning Goals

LG 5-1: TBD

tbd.

LG 5-2: TBD

tbd.



Die einzelnen Lernziele müssen nicht als einfache Aufzählungen mit Unterpunkten aufgeführt werden, sondern können auch gerne in ganzen Sätzen formuliert werden, welche die einzelnen Punkte (sofern möglich) integrieren.

5.3. References

[\[DeMarco+2006\]](#), [\[Martin 2000\]](#), [\[Sonarqube\]](#), [\[Hello2morrow\]](#)



Eine Quelle wird über [\[label\]](#) referenziert. Dieses muss in [99-references/00-references.adoc](#) definiert sein.

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A reference source is referenced via [\[label\]](#). The label has to be defined in [99-references/00-references.adoc](#).

6. Examples

Duration: XXX min	Practice time: XXX min
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This section is not examinable.

6.1. Terms and Principles

In every licensed training session, at least one example for ARCEVAL must be presented.

Type and structure of the examples presented may depend on the training and participants' interests. The are not prescribed by iSAQB.



Sinnvolle Zeiten für Dauer und Übungszeit eintragen.

6.2. Learning Goals

LG 98-1: Last learning goal of the curriculum



KURZE ERKLÄRUNG ZU DEN ZIELEN DIESER LERNEINHEIT

6.3. References

Keine. Schulungsanbieter sind für die Auswahl und Beschreibung von Beispielen verantwortlich.



Eine Quelle wird über `[label]` referenziert. Dieses muss in `99-references/00-references.adoc` definiert sein.

= = =

A reference source is referenced via `[label]`. The label has to be defined in `99-references/00-references.adoc`.

References

This section contains references that are cited in the curriculum.

Aufbau eines Eintrags-Ankers:

- [[[label,Text der erscheint]]]

ACHTUNG: Die Labels dürfen nur Buchstaben beinhalten, keine Zahlen oder Sonderzeichen



= = =

Structure of an anchor:

- [[[label,text that will be shown]]]

ATTENTION: labels have to be non-numeric.

B

- [Bachmann+2000] Bachmann, F., L. Bass, et al.: Software Architecture Documentation in Practice. Software Engineering Institute, CMU/SEI-2000-SR-004.
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- [Bass+2003] Bass, L., Clements, P. und Kazman, R. (2003): Software Architecture in Practice. Addison-Wesley, Reading, Mass.
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C

- [Clements+2002] Clements, P., R. Kazman, M. Klein: Evaluating Software Architectures – Methods and Case Studies. Addison Wesley, 2002.
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D

- [DeMarco+2006] DeMarco, T.: Controlling Software Projects: Management, Measurement and Estimation. Prentice Hall, 1986.

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- [Hello2morrow] Hello2Morrow, online: <http://www.hello2morrow.com/>

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- [Kazman+2000] Kazman, R., Klein, M., Clements, P.: ATAM: Method for Architecture Evaluation. Software Engineering Institute, CMU/SEI-2000-TR-004.
- [Kazman+2005] Kazman, R., Bass, L.: Categorizing Business Goals for Software Architectures. Software Engineering Institute, CMU/SEI-2005-TR-021.
- [Kruchten 1995] Kruchten, P.: Architectural Blueprints – The 4-1 View Model of Architecture. IEEE Software November 1995; 12(6), p. 42-50.

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- [Martin 2000] Martin, R.C.: Design Principles and Design Patterns. White-Paper, 2000.

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S

- [Sonarqube] Sonarqube, online: <https://www.sonarqube.org/>
- [Starke 2011] Starke, G. (2011): Effektive Software-Architekturen - Ein praktischer Leitfaden. 5. Auflage 2011, Carl Hanser Verlag, München.