

Curriculum for

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

Module
MODULKUERZEL

FULL NAME OF MODULE

Version 2020.1-EN; May 29, 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 “MODULKUERZEL” convey?	4
Curriculum Structure and Recommended Durations	4
Duration, Teaching Method and Further Details	4
Prerequisites	5
Structure of the Curriculum	5
Supplementary Information, Terms, Translations	5
1. Lesson 1	6
1.1. Terms and Principles	6
1.2. Learning Goals	6
1.3. References	6
2. Lesson 2	7
2.1. Terms and Principles	7
2.2. Learning Goals	7
2.3. References	7
3. Lesson 3	8
3.1. Terms and Principles	8
3.2. Learning Goals	8
3.3. References	8
4. Lesson 4	9
4.1. Terms and Principles	9
4.2. Learning Goals	9
4.3. References	9
5. Lesson 5	10
5.1. Terms and Principles	10
5.2. Learning Goals	10
5.3. References	10
6. Examples	11
6.1. Terms and Principles	11
6.2. Learning Goals	11
6.3. References	11
References	12

© (Copyright), International Software Architecture Qualification Board e. V. (iSAQB® e. V.) 2020

The curriculum may only be used subject to the following conditions:

1. You wish to obtain the CPSA Certified Professional for Software Architecture Advanced Level® certificate. For the purpose of obtaining the certificate, it shall be permitted to use these text documents and/or curricula by creating working copies for your own computer. If any other use of documents and/or curricula is intended, for instance for their dissemination to third parties, for advertising etc., please write to info@isaqb.org to enquire whether this is permitted. A separate license agreement would then have to be entered into.
2. If you are a trainer or training provider, it shall be possible for you to use the documents and/or curricula once you have obtained a usage license. Please address any enquiries to info@isaqb.org. License agreements with comprehensive provisions for all aspects exist.
3. If you fall neither into category 1 nor category 2, but would like to use these documents and/or curricula nonetheless, please also contact the iSAQB e. V. by writing to info@isaqb.org. You will then be informed about the possibility of acquiring relevant licenses through existing license agreements, allowing you to obtain your desired usage authorizations.

Important Notice

We stress that, as a matter of principle, this curriculum is protected by copyright. The International Software Architecture Qualification Board e. V. (iSAQB® e. V.) has exclusive entitlement to these copyrights.

The abbreviation "e. V." is part of the iSAQB's official name and stands for "eingetragener Verein" (registered association), which describes its status as a legal entity according to German law. For the purpose of simplicity, iSAQB e. V. shall hereafter be referred to as iSAQB without the use of said abbreviation.

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

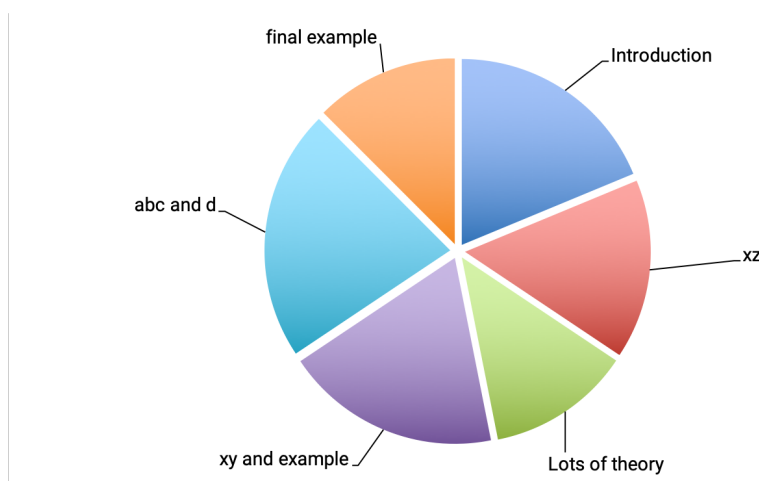
What does the module “MODULKUERZEL” convey?

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

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



Duration, Teaching Method and Further Details

The times stated below are recommendations. The duration of a training course on the MODULKUERZEL module should be at least **3** 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 MODULKUERZEL module contribute the following credit points towards admission to the final Advanced Level certification exam:

Methodical Competence: **3** Points

Technical Competence: **3** Points

Communicative Competence: **3** 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

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. Lesson 1

Duration: XXX min	Practice time: XXX min
-------------------	------------------------

1.1. Terms and Principles

- Term 1
- Term 2
- Term 3

1.2. Learning Goals

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

tbd.

1.3. References

- [\[Starke 2011\]](#)
- [\[Bass 2003\]](#)

2. Lesson 2

Duration: XXX min	Practice time: XXX min
-------------------	------------------------

2.1. Terms and Principles

- Term 1
- Term 2
- Term 3

2.2. Learning Goals

LG 2-1: TBD

tbd.

LG 2-2: TBD

tbd.

2.3. References

- [\[Bass 2003\]](#)
- [\[Clements+2003\]](#)

3. Lesson 3

Duration: XXX min	Practice time: XXX min
-------------------	------------------------

3.1. Terms and Principles

- Term 1
- Term 2
- Term 3

3.2. Learning Goals

LG 3-1: TBD

tbd.

LG 3-2: TBD

tbd.

3.3. References

- [\[Hargis+2004\]](#)
- [\[Starke 2011\]](#)

4. Lesson 4

Duration: XXX min	Practice time: XXX min
-------------------	------------------------

4.1. Terms and Principles

- Term 1
- Term 2
- Term 3

4.2. Learning Goals

LG 4-1: TBD

tbd.

LG 4-2: TBD

tbd.

4.3. References

- [\[Kruchten 1995\]](#)

5. Lesson 5

Duration: XXX min	Practice time: XXX min
-------------------	------------------------

5.1. Terms and Principles

- Term 1
- Term 2
- Term 3

5.2. Learning Goals

LG 5-1: TBD

tbd.

LG 5-2: TBD

tbd.

5.3. References

- [\[Starke 2011\]](#)

6. Examples

Duration: XXX min	Practice time: XXX min
-------------------	------------------------

This section is not examinable.

6.1. Terms and Principles

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

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

6.2. Learning Goals

LG 98-1: Last learning goal of the curriculum

6.3. References

- [\[Bachmann 2000\]](#)
- [\[Kruchten 1995\]](#)

References

This section contains references that are cited in the curriculum.

B

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

C

- [Clements+2003] Clements, P., F. Bachmann, L. Bass, D. Garlan, J. Ivers et al: Documenting Software Architectures – Views and Beyond. Addison Wesley, 2003.

H

- [Hargis+2004] Hargis, Gretchen et. al: Quality Technical Information: A Handbook for Writers and Editors. Prentice Hall, IBM Press, 2004.

K

- [Kruchten 1995] Kruchten, P.: Architectural Blueprints – The 4-1 View Model of Architecture. IEEE Software November 1995; 12(6), p. 42-50.

S

- [Starke 2011] Starke, G. (2011): Effektive Software-Architekturen - Ein praktischer Leitfaden. 5. Auflage 2011, Carl Hanser Verlag, München.