

Curriculum for

Certified Professional for  
Software Architecture (CPSA)<sup>®</sup>  
*Advanced Level*

**Module**  
**MODULKUERZEL**

**FULL NAME OF MODULE**

Version 1.0.0-DRAFT-EN; March 30, 2020



## Table of Contents

List of Learning Goals .....	2
Introduction: General information about the iSAQB Advanced Level .....	3
What does an Advanced Level Module convey? .....	3
What qualifications do Advanced Level (CPSA-A) graduates gain? .....	3
Requirements for the CPSA-A certification .....	3
Basics .....	4
What does the module "MODULKUERZEL" convey? .....	4
Curriculum structure and recommended durations .....	4
Duration, didactics, and further details .....	5
Prerequisites .....	5
Structure of the curriculum .....	5
Further information, terminology, translations .....	6
1. Lesson 1 .....	7
1.1. Terms and concepts .....	7
1.2. Learning goals .....	7
1.3. References .....	7
2. Lesson 2 .....	8
2.1. Terms and concepts .....	8
2.2. Learning goals .....	8
2.3. References .....	8
3. Lesson 3 .....	9
3.1. Terms and concepts .....	9
3.2. Learning goals .....	9
3.3. References .....	9
4. Lesson 4 .....	10
4.1. Terms and concepts .....	10
4.2. Learning goals .....	10
4.3. References .....	10
5. Lesson 5 .....	11
5.1. Terms and concepts .....	11
5.2. Learning goals .....	11
5.3. References .....	11
6. Examples .....	12
6.1. Terms and concepts .....	12
6.2. Learning goals .....	12
6.3. References .....	12
References .....	13

© (Copyright), International Software Architecture Qualification Board e. V. (iSAQB® e. V.) 2019

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](mailto: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](mailto: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](mailto: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.



This version of this document has been produced with comments (like this one) enabled. It is **NOT** intended for public distribution or publication, but primarily for internal iSAQB purposes.

## 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 does an Advanced Level Module convey?

- The iSAQB Advanced Level offers modular training in three competence areas with flexible pathways through the programme. It acknowledges and supports individual strengths and focus points.
- The certification is based on a homework paper. Grading and oral examination will be carried out through an expert designated by iSAQB.

### What qualifications do Advanced Level (CPSA-A) graduates gain?

CPSA-A graduates are able to:

- design medium to large IT systems independently and based on solid methodical foundations
- take technical and operational responsibility in IT systems with medium to high criticality
- design and document measures to achieve quality requirements and support development teams implementing those measures
- manage communication relevant to architecture in medium to large development teams

### Requirements for the CPSA-A certification

- successful training and graduation of Certified Professional for Software Architecture, Foundation Level® (CPSA-F)
- at least three years industrial, full-time experience in the IT sector; including collaboration on design and development of at least two different IT systems
  - exceptions may be granted (for example: contributions to open source projects)
- participation at iSAQB Advanced Level trainings worth at least 70 credit points from two different areas of competence
  - existing certifications (for example: Sun/Oracle Java architect, Microsoft CSA) may be credited
- passing the CPSA-A certification exam



## Basics

### 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 ...

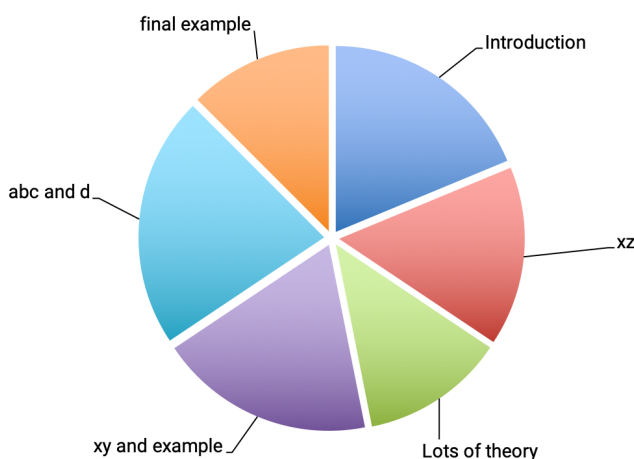


Hier bitte das Modul bzw. dessen Lerninhalte zusammenfassend in 5-8 Sätzen beschreiben. Dabei **FULL NAME OF MODULE** nicht entfernen, beim Zusammenbauen wird dieser Platzhalter mit dem Modulnamen ersetzt.

### 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
Sum	960 (16h)

#### Durations



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, didactics, and further details

The durations mentioned below are recommendations. A course for the MODULKUERZEL should last at least \*\*?\* days. Provides may vary length, didactics, type and structure of exercises, and structure of the course. In particular, examples and exercises are left unspecified in this curriculum.

Licensed courses for MODULKUERZEL contribute the following credit points to the Advanced Level graduation:

Methodical Competence:	**?* Points
Technical Competence:	**?* Points
Communicative Competence:	**?* 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 sections of the curriculum are laid out as follows:

- **Terms/concepts:** core terminology of the topic
- **Instruction/exercise time:** specifies the minimum durations for instruction and exercise blocks for licensed trainings
- **Learning goals:** describes in detail the lessons, including core terminology and concepts

This section outlines the knowledge to be gained in the training sessions. The learning goals are classified according to the following categories:

- What should the participants **be able to do**? Participants should be able to apply these concepts by themselves without guidance. In courses, these topics should be covered by exercises and are part of the examination MODULKUERZEL and/or the final examination of the iSAQB Advanced Level.
- What should the participants **understand**? These topics may be part of the examination {curriculum-short}.
- What should the participants **know**? These topics (terminology, concepts, methods, practices) may aid understanding or motivate broader concepts. They are not part of the examination and may be discussed in trainings on a basic, abstract level.

### **Further information, terminology, 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

Lesson duration: XXX min

Exercises: XXX min

### 1.1. Terms and concepts

- 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

- [Starke 2011]
- [Bass 2003]



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. Lesson 2

Lesson duration: XXX min

Exercises: XXX min

### 2.1. Terms and concepts

- 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

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



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](#).

### 3. Lesson 3

Lesson duration: XXX min

Exercises: XXX min

#### 3.1. Terms and concepts

- 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

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



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`.

## 4. Lesson 4

Lesson duration: XXX min	Exercises: XXX min
--------------------------	--------------------

### 4.1. Terms and concepts

- 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

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



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](#).

## 5. Lesson 5

Lesson duration: XXX min

Exercises: XXX min

### 5.1. Terms and concepts

- 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

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



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`.

## 6. Examples

Lesson duration: XXX min	Exercises: XXX min
--------------------------	--------------------

This section is not examinable.

### 6.1. Terms and concepts

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.



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

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



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.
- [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.