Curriculum for

Certified Professional for Software Architecture (CPSA)®
Advanced Level

Module
MODULKUERZEL

FULL NAME OF MODULE

Version 1.0.0-DRAFT-EN; March 30, 2020

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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 idependently 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

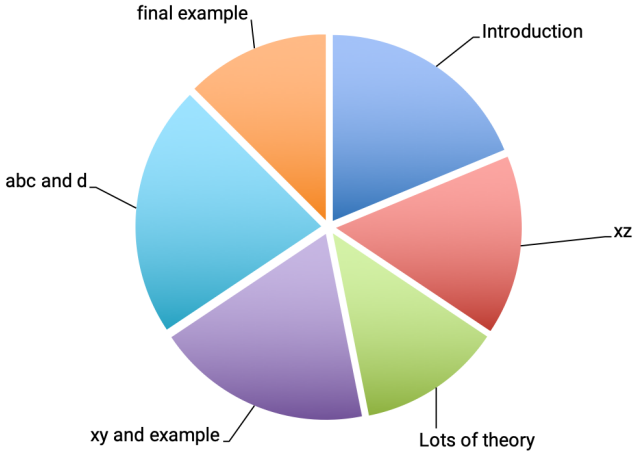
What does the module “MODULKUERZEL” convey?

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

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



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

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 {curriulum-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

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

Lesson duration: XXX min	Exercises: XXX min

2.1. Terms and concepts

- 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

Lesson duration: XXX min	Exercises: XXX min

3.1. Terms and concepts

- 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

Lesson duration: XXX min	Exercises: XXX min

4.1. Terms and concepts

- 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

Lesson duration: XXX min	Exercises: XXX min

5.1. Terms and concepts

- 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

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. The 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.