



# Higher Education

Academic Teaching and Research-Based Learning

Certificate of Advanced Studies CAS

Faculty of Arts and Social Sciences of the University of Zurich

# Content

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# Foreword



Continuing Education in University Teaching and Learning offers a comprehensive continuing education program for University of Zurich instructors. The goal is to support instructors in honing their professional teaching skills, provide specialist knowledge related to university teaching and learning, and platforms for dialogue on good teaching and successful learning.

The Faculty of Arts and Social Sciences at UZH offers the *CAS in Higher Education*. This two-year, part-time continuing education program covers all relevant aspects of current university teaching and learning. The program is aimed at Higher Education instructors and people who deal with issues related to teaching and learning. The CAS can be completed with or without a focus. Participants can choose between *Research-Based Learning* and *Digital Competences*.

**Prof. Dr. Kai Niebert**  
**Director of the CAS in Higher Education**

**Anja Pawelleck, Certified Psychologist**  
**Program Management of the**  
**CAS in Higher Education**

## Program Overview

### Subject

The *CAS in Higher Education* is a part-time continuing education program covering all the relevant aspects of current university teaching and learning. Participants learn how to plan and conduct competence-oriented courses and assess their teaching appropriately. They will be introduced to innovative teaching settings and approaches to evaluation.

The CAS is offered in Blended Learning, combining a variety of teaching and learning formats. Alongside in-class sessions, participants create a teaching-learning portfolio, are observed by experts, take part in peer observations, and try their hand at peer counseling. This study program can be completed with or without a focus. Participants can choose between *Research-Based Learning* and *Digital Competences*.

The focus *Research-Based Learning* familiarizes instructors with concepts that they can use to involve their students in research and support them to actively develop their own research skills. This is implemented at a practical level in a teaching project in the area of *Research-Based Learning* or *Scholarship of Teaching and Learning*.

The focus *Digital Competences* concentrates on the acquisition of Digital Skills by instructors in relation to the design of blended and distance learning settings and student acquisition of digital skills during courses. This is implemented at a practical level in a teaching project in the area of *Digital Competences* or *Scholarship of Teaching and Learning*.

### Objectives

Participants develop and strengthen their skills in planning effective and sustainable courses. They apply research-based findings to their own teaching practice. They expand their horizons in terms of teaching and learning in Higher Education through interdisciplinary exchange. They develop skills for systematic innovation in discipline-specific teaching. They hone and professionalize their teaching profiles.

### Target audience

Instructors in Higher Education

### Requirements for admission

Participants must hold a Master's degree from an accredited university. During the continuing education program they must complete specific teaching activities at a university, a university of applied sciences, or a university of teacher education.

### Transfer of credits for Teaching Skills

Credits gained for the University of Zurich's *Teaching Skills* program is transferred in full to the *CAS in Higher Education*. *Teaching Skills* is credited up to five years after its completion.

### Method of working

Particular attention is paid to link theory and practice. Participants acquire research-based teaching practices and apply them to their own teaching in an evidence-based manner. Challenges in teaching are discussed and worked on in practical, solution-oriented ways. During the two-year program, participants also reflect on their individual understanding of teaching and the concepts that guide their teaching actions in Higher Education.

### Final award

Certificate of Advanced Studies UZH in Higher Education (15 ECTS credits).  
A chosen focus is indicated on the certificate.

### Language

Switches annually between German and English, individual modules are generally in English. Assessments can be submitted in English or German.

### Governing body

Faculty of Arts and Social Sciences of the University of Zurich, represented by Prof. Dr. Kai Niebert

### Number of participants

Maximum of 16 to 20 participants

### Duration/Dates/Times

- Duration: Two years (14 whole and 2 half attendance days)
- Dates: see *Overview of Classroom Sessions*
- Times: Generally 9am to 5pm

### Location

The University of Zurich's Center for Continuing Education  
Schaffhauserstrasse 228, 8057 Zurich  
([www.zwb.uzh.ch](http://www.zwb.uzh.ch))

### Fees

CHF 8,700 for external participants  
Members of the University of Zurich: Cost reduction possible, see website [www.weiterbildung.uzh.ch/en/hochschuldidaktik/lscas](http://www.weiterbildung.uzh.ch/en/hochschuldidaktik/lscas)  
Costs comprise tuition and fees, including program documentation, evaluation of assessments, and refreshments during breaks.

### Application

Online application form:  
[www.weiterbildung.uzh.ch/en/hochschuldidaktik/lscas](http://www.weiterbildung.uzh.ch/en/hochschuldidaktik/lscas)

### Program management and information

University of Zurich, Continuing Education  
Program management: Anja Pawelleck, Dipl.-Psych.  
Program coordination: Lisa Gubler, MA  
Phone: +41 (0)44 634 29 84, email: [hdinfo@wb.uzh.ch](mailto:hdinfo@wb.uzh.ch)  
Website: [www.weiterbildung.uzh.ch/en/hochschuldidaktik/lscas](http://www.weiterbildung.uzh.ch/en/hochschuldidaktik/lscas)

### Information event

See website  
Please sign up in advance:  
[hdinfo@wb.uzh.ch](mailto:hdinfo@wb.uzh.ch)



## Focus on Research-Based Learning

### Content

Unity of research and teaching is the aspiration and objective of good teaching in Higher Education. In this regard, the question arises as to how students can not just find out about the latest research, but also acquire research skills themselves.

A concept that has increasingly found its way into teaching in recent years is *Research-Based Learning*. Under this concept, students work on a research project and go through the phases of the research cycle or parts thereof independently.

To develop teaching concepts that enable an understanding of research, instructors must be familiar with the challenges that students face at the beginning of their own research activities.

### Learning objectives

Participants will be able to:

- Plan and hold courses in a *Research-Based Learning* format
- Identify the challenges facing instructors and students in *Research-Based Learning* and take them into account in course planning
- Enable students to build up research skills in their own subject

### Requirements

- Elective module: Courses of at least one day in the area of *Research-Based Learning*
- *Teaching Innovation* module: Attendance of the course day on *Research-Based Learning*
- Planning, conducting, and documenting a teaching project in the area of *Research-Based Learning*

## Focus on Digital Competences

### Content

Digital skills are among the so-called 21<sup>st</sup> century skills or future skills. For instructors, this means that they must be capable of incorporating digital teaching and learning technologies into their own teaching. This includes both technical and didactic skills. Both areas are addressed in the CAS with the focus *Digital Competences*.

The fact that today's students need to acquire different digital skills (employability) by the end of their study programs than ten years ago is also taken into account. Instructors must therefore be able to convey the relevant skills to students.

### Learning objectives

Participants will be able to:

- Incorporate digital methods in teaching and learning settings appropriately
- Use digital media to promote collaborative learning strategies and self-guided learning processes
- Enable students to use digital media in their own teaching in order to improve communication and cooperation within the study group
- Reflect on, critically evaluate, and actively develop their own practice with regard to the didactical use of digital media

### Requirements

- Elective module: Courses of at least one day in the area of *Digital Competences*
- *Teaching Innovation* module: Attendance of the course day on *Digital Competences*
- Planning, conducting, and documenting a teaching project in the area of *Digital Competences*

## Overview of Classroom Sessions

### Duration

The classroom sessions comprise a total of 14 whole and two half attendance days. During the two year program, participants also engage in peer observation, create their individual teaching-learning portfolio, and develop and carry out an innovative teaching project.

### Basics of Course Planning (2 ECTS credits)

Planning and conducting student- and competence-oriented courses

### Competent Teaching Practice in Complex Teaching Settings (2 ECTS credits)

Complex course designs, cooperative learning settings and 21<sup>st</sup> century skills

### Elective Module (1 ECTS credit)

- Individual choice of courses in *didactica*, Lehre KOMPAKT etc., over two days
- If a program focus is chosen, special requirements apply

### Activities in the Teaching Community (1 ECTS credit)

- Two visits to lessons given by colleagues
- Two visits by colleagues to own lessons

### Teaching-Learning Portfolio (1 ECTS credit)

Participants create a teaching portfolio that reflects their teaching activities at a university, a university of applied sciences, or a university of teacher education.

### Teaching Innovation (2 ECTS credits)

- *Scholarship of Teaching and Learning*
- Focus day in *Research-Based Learning* or *Digital Competences*

### Leading, Counseling, and Supervising in Teaching (2 ECTS credits)

- Including *peer counseling*
- Expert observation

### Teaching Project and Final Colloquium (4 ECTS credits)

- Planning and conducting a teaching project
- Colloquium with poster presentation

## Basics of Course Planning (2 ECTS credits)

### Content

This module focuses on familiarizing participants with the fundamentals of teaching and learning research and *Constructive Alignment*. Activities center around the formulation of learning outcomes, course planning and conducting, and various ways of monitoring learning success. Alongside the research-based study of these topics, great importance is attached to the application of the content to participants' own course planning and development.

### Learning objectives

Participants will be able to

- Explain *Constructive Alignment* and take it into account in their course planning
- Explain learning outcome taxonomies and use them appropriately
- Use *Concept Maps* to reduce content and provide orientational knowledge
- Plan lessons in an activating, competence-oriented way
- Plan, conduct, and evaluate competence-oriented assessments
- Evaluate their own teaching competence

### Forms of teaching

Brief input, individual and group work, discussion, reflection, peer feedback

### Module components

- Three attendance days of eight hours
- Preparatory task
- Assessment

## Competence Teaching Practice in Complex Teaching Settings (2 ECTS credits)

### Content

This module focuses on complex teaching settings and their implementation in teaching in Higher Education. It familiarizes participants with collaborative teaching and learning settings, teaching 21<sup>st</sup> century skills, and dealing with specific challenges in teaching.

### Learning objectives

Participants will be able to

- Explain with various complex course formats and able to apply these to the requirements of their own subject
- Discuss the challenges of various collaborative teaching and learning settings
- Use problem-based learning to tackle problems from everyday life in teaching in Higher Education

### Forms of teaching

Brief input, individual and group work, problem-based learning, reflection, discussion, case work

### Module components

- Three attendance days of eight hours
- Preparatory task
- Case work in a small group
- Assessment

### Focus

Initial in-depth study in the focus area is possible

## Elective Module (1 ECTS credit) Activities in the Teaching Community (1 ECTS credit) Teaching-Learning Portfolio (1 ECTS credit)

### Elective Module (1 ECTS credit)

#### Content

Individual choice of courses in *didactica*, Lehre KOMPAKT etc., or a module stipulated by the faculty

#### Learning objectives

Participants will be able to

- Identify their own development areas and to select appropriate courses
- Apply in-depth knowledge in key topics in Higher Education to their own teaching

#### Module components

- Two attendance days
- Preparatory task: Individual, depending on course
- Assessment

#### Focus

Courses lasting at least one day must be selected in the focus area

### Activities in the Teaching Community (1 ECTS credit)

Participants get to know the technique of *peer observation*. *Peer observation* is a process where a colleague from the same or a different field attends a course as a guest and then gives feedback on what they have observed.

- Two visits to lessons given by colleagues
- Two visits by colleagues to own lessons

### Teaching-Learning Portfolio (1 ECTS credit)

Participants create a teaching-learning portfolio that reflects on their teaching activities at a university, a university of applied sciences, or a university of teacher education. They describe and reflect on their own development and indicate future options of action. The teaching-learning portfolio is supervised and assessed by Higher Education experts selected by program management.

The teaching-learning portfolio must be submitted no later than July 31 of the year in which the *Competence Teaching Practice in Complex Teaching Settings* module is attended.

## Teaching Innovation (2 ECTS credits)

### Content

The module provides a research-based introduction to the topics of *Research-Based Learning or Digital Competences* and *Scholarship of Teaching and Learning*, thus serving as preparation for the teaching project that is conducted in the *Teaching Project and Final Colloquium* module. Participants develop concepts for their teaching projects and hone these in peer review.

### Learning objectives

Participants will be able to

- Plan courses in the format of the focus area and to transfer this to specific topics
- Identify the challenges facing instructors and students during a course in the format of the focus area and take them into account in course planning
- Explain the concept of *Scholarship of Teaching and Learning* and apply it to questions that arise in their own teaching practice
- Develop ideas for their own teaching projects

### Forms of teaching

Input, individual and group work, discussion, reflection, peer review

### Module components

- Three attendance days of eight hours
- Preparatory task
- Assessment

## Leading, Counseling, and Supervising in Teaching (2 ECTS credits)

### Content

In this module, participants acquire tools they can use to successfully guide various teaching-related processes. These include advising students on term papers during consultation hours, supporting project groups during a semester, supervising Bachelor's and Master's theses, and leading their own courses. In peer counseling, they discuss strategies and solutions to difficult cases from participants' own teaching practice.

### Learning objectives

Participants will be able to

- Use the framework to which they can assign the topics of leading, counseling, and supervising in teaching
- Reflect on the (role) requirements of various teaching and counseling situations
- Explain and apply key conversational principles and techniques
- Recognize various feedback situations and use appropriate feedback methods in a constructive manner

### Forms of teaching

Input, individual and group work, discussion, reflection, peer counseling, expert observation with individual feedback

### Module components

- Two attendance days of eight hours
- Two half-day peer counseling sessions lasting four hours each
- Preparatory task
- Expert observation
- Assessment

## Teaching Project and Final Colloquium (4 ECTS credits)

### Content

In this module, participants independently carry out a teaching project in the area of *Research-Based Learning*, *Digital Competences* or *Scholarship of Teaching and Learning*. This includes planning, conducting, and documenting a project as part of their own teaching activity at a university, a university of applied sciences, or a university of teacher education. The module is assessed via the publication of the teaching project in various formats:

- Poster presentation in the final colloquium
- Publication of the full project documentation and the poster within the CAS community for that academic year
- Publication of the abstract from the project documentation on the blog *Academic Teaching and Research-Based Learning* of UZH Continuing Education for University Teaching and Learning.

The teaching project is supervised and assessed by Higher Education experts selected by program management.

Examples of teaching projects from the *CAS in Higher Education* can be found online on the blog *Academic Teaching and Research-Based Learning* of UZH Continuing Education for University Teaching and Learning: [www.uzh.ch/blog/weiterbildung-cashd](http://www.uzh.ch/blog/weiterbildung-cashd)

### Learning objectives

Participants will be able to

- Develop a teaching project in the focus area, which entails (re)designing, conducting, documenting, and evaluating a course in line with their focus
- or
- Develop a teaching project by exploring a teaching-related question that arises in their field and tackling it with appropriate methods
  - Present their teaching project with a poster in a final colloquium
  - Describe and reflect on their teaching project in a project documentation

### Forms of teaching

Individual project counseling, keynote, poster presentation, peer feedback, expert feedback

### Module components

- One attendance day of eight hours
- Preparatory task
- Expert counseling
- Assessment

### Apéro

The CAS will be rounded off at the end of the colloquium with an Apéro.

## Program Management/Instructors/Experts

**Anja Pawelleck**, Dipl.-Psych., is Team Leader at the Continuing Education for University Teaching and Learning UZH and Program Management for the *CAS in Higher Education*. She is an occupational and organizational psychologist, a qualified trainer, and a bso-certified coach/supervisor.

**Dr. Svenja Kaduk** is Deputy Program Management for the *CAS in Higher Education* in the Continuing Education for University Teaching and Learning team at UZH and course leader for the English-language *Teaching Skills* program. She has a PhD in History and is a certified writing didactics expert.

**Dr. Sascha Demarmels** is responsible for continuing education for instructors at the University of Applied Sciences in Business Administration Zurich. She is a lecturer at various higher education institutions and also works on a self-employed basis as an interpersonal communication expert. Demarmels studied linguistics, obtaining her PhD at the University of Zurich.

**Balthasar Eugster**, lic. phil., is Head of the Curriculum Development team in the Educational Development department at UZH and was Deputy Head of the Unit for Teaching and Learning at ETH Zurich. He studied sociology, philosophy, and education at the Universities of Basel and Fribourg.

**Waltraud Georg**, Dipl.-Päd., MME, is Scientific Coordinator at the Department of Medical Education (DEMEDA) of the University of Augsburg. She worked in academic program development at the Charité – Universitätsmedizin Berlin (university hospital) and at the Universities of Zurich and Lucerne as well as in the Continuing Medical Training department of the Ärztekammer Berlin (Medical Chamber Association).

**Dr. Franziska Jäpel** is Deputy Team Leader in Continuing Education for University Teaching and Learning at UZH. She studied sociology, psychology, and education at the University of Erlangen–Nuremberg and has a PhD in Educational Science Specializing in Educational Sociology from the University of Bern.

**Dr. Katarina Mårtensson** is Professor at the Division for Higher Education Development at Lund University. She has been working as an Academic Developer in Higher Education since 2000. Her PhD thesis was on teaching and learning micro cultures and her habilitation thesis was on academic leadership.

**Prof. Dr. Kai Niebert** is Professor of Natural Science and Sustainability Education at the University of Zurich. His research interests lie in the analysis of lay conceptions of scientific issues and the evidence-based design of teaching strategies.

**Dr. Jochen Spielmann** is an Academic Associate at the Center of Competence for University Teaching and Learning for Niedersachsen at the Technical University of Braunschweig. He is a DGSv/bso-certified coach and supervisor. His work focuses on connecting research, teaching, and learning, skills-oriented teaching, and coaching.

**Dr. Daniel Tolks** is researcher in Digital Teaching and Learning at the Leuphana University in Lüneburg. Among other roles, he is Chair of the Digitalization Committee of the DACH Association for Medical Education (GMA). His research focuses on digital teaching and learning, artificial intelligence in medicine, serious games, and gamification to promote health and learning.

**Anke Waldau** is an expert in Higher Education, a certified coach, and a change manager who has been working in Academic Staff Development at the University of Konstanz since 2011. She studied literature and linguistics (English and Spanish), qualifying as a teacher in those subjects.



# Continuing Education at the University – Where Science and Research Feed into Professional Practice

The University of Zurich offers a wide range of continuing education courses including both part-time study programs and one-day and multi-day courses. The study programs (MAS, DAS, and CAS) are generally aimed at people with a university degree and practical experience. In exceptional cases, people with equivalent qualifications and specific professional experience may be admitted. Subject-specific courses are geared to select groups of professionals, while courses on general topics are open to anyone interested.

Continuing education at the University of Zurich is about sharing knowledge as well as imparting it. New techniques, models, and practices find their way into the day-to-day work of program participants thanks to the use of realistic examples and exercises. The University of Zurich's excellent reputation as a center of education and research means it can guarantee quality, high-level continuing education.

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