

COFFEE
EXCELLENCE
CENTER

CAS Coffee Excellence Info-Event

Info-Event
22 August, 3 pm



Welcome! Who is here today?



Dr. Samo Smrke

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**Dr. Marco
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Agenda (45min)

1. ZHAW Coffee Excellence Center (5 min)
2. Overview of CAS in Coffee Excellence (10 min)
3. Insights from Module Instructors (5-10 min)
4. Enrolment info (5 min)
5. Q&A (15-20 min)

COFFEE
EXCELLENCE
CENTER

Coffee Excellence Center (CEC) at the ZHAW

- **Zurich University of Applied Sciences ZHAW** in Wädenswil (Zurich), Switzerland
- Research Center at the Institute of Chemistry and Biotechnology ICBT, founded by **Prof. Dr. Chahan Yeretdzian** in 2008.



Research along the coffee value chain

Research Fields

Green Coffee & Origin



Dr. Sebastian Opitz

Transformation of Coffee



Dr. Samo Smrke

Extraction & Sensory Evaluation



Dr. Marco Wellinger



Course offerings for Coffee Professionals

Certificate of Advanced Studies CAS in COFFEE EXCELLENCE

Online English
15 month
Since 2021
3 Modules

CHF 7800.-

NEW

Short Courses

Online English
15 hours
Excerpts from full program:
*Processing
* Drip & Immersion
* Capsules

CHF 600.-

CAS in The Science and Art of Coffee

On site German
9 month
Since 2010
German Speaking Markets

Relaunch 2025/26

NEW 2025

Robusta Course

Online English
1 Module

Foreseen for 2025

Tailormade Education for Companies

In-person, blended, or online.

From workshops to full CAS program

Nespresso University Program since 2017






CAS in Coffee Excellence

- delve into the science of coffee



15 month over 3 modules

Module A	Module B	Module C
The Coffee Fruit Green Coffee, From Tree to Trade	The Coffee Bean Transformation & Composition	The Coffee Cup Extraction & Sensory Evaluation
		
Introduction	Introduction	Introduction
A1 History & Origin	B1 Roasting & Physical Transformation	C1 Extraction & Brewing
A2 Botany	B2 Roasting & Chemical Transformation	C2 Brewing Water
A3 Farm Management	B3 Grinding	C3 Drip & Immersion
A4 Processing of Coffee	B4 Freshness	C4 Espresso Machines & Beverages
A5 Trade	B5 Health	C5 Capsules
A6 Sustainability & Climate Change	B6 Soluble Coffee & Decaffeinated Coffee	C6 Sensory Evaluation
Assessment	Assessment	Assessment
21 weeks Workload: 125 h, 5 ECTS*	21 weeks Workload: 125 h, 5 ECTS*	21 weeks Workload: 125 h, 5 ECTS*

Workload: 15 ECTS (375 h)

*Workload per week: 7-8 hours



Who is taking this programme?

- **Coffee professionals** within the supply chain who want to pair their **skills-based** careers with a solid foundation in **science** of coffee.
- Professionals with **a university degree** and preferably some experience in **sensory** and a basic knowledge or interest in **chemistry/physics/biology**.
- 100+ graduates since 2021
- Currently 38 studying – 4th cohort
- International Cohorts (45+ countries)
- Large Alumni Network



Programme Objectives

- Gain **in-depth knowledge** of the **science** of coffee, from crop to cup.
- Learn how to **approach** the topic of coffee **scientifically**.
- Apply **practical knowledge** (experiments, hands-on tasks at home).
- Develop **critical thinking skills**.
- Enlarge your **professional network**.



Methodology

- **Self-study through online platform Moodle:** Learning slides, videos, hands-on exercises and experiments at home, further reading material, science primer
- **Virtual classrooms, live-lab sessions** with module instructors and experts in industry and science.
- **1:1 support through instructor** and programme coordinator, personalized feedback (forum, office hours)
- **Quizzes, reflective questions** to test your knowledge and apply what you've learned.



Module Breakdown

- 1 Module = 21 weeks
- 6 self-learning sessions: 15 weeks
- Assessment: approximately 3 weeks
- Closing/lecture-free time: 2 weeks (attendance of one virtual classroom closing session)
- Workload: 125 hours, 5 ECTS*
- 6-9 hours of study per week

CAS in Coffee Excellence 2024-2025

Module A			
Week	Start date	End date	Topic
1	30-Sep-24		Course start
1	5-Oct-24		Virtual Classroom: Introduction (15:00 CEST, 60 min)
1	30-Sep	6-Oct	Introduction week, A1 History and Origin
2	7-Oct	13-Oct	Session A1 History and Origin
3	14-Oct	17-Oct	Session A1 History and Origin
3	17-Oct-24		Virtual Classroom 1 (15:00 CEST, 90 min)
3	18-Oct	20-Oct	Session A2 Botany
4	21-Oct	27-Oct	Session A2 Botany
5	28-Oct	3-Nov	Session A2 Botany
6	4-Nov	7-Nov	Session A2 Botany
6	7-Nov-24		Virtual Classroom 2 (15:00 CET, 90 min)
6	8-Nov	10-Nov	Session A3 Farm Management
7	11-Nov	17-Nov	Session A3 Farm Management
8	18-Nov	24-Nov	Session A3 Farm Management
9	25-Nov	28-Nov	Session A3 Farm Management
9	28-Nov-24		Virtual Classroom 3 (15:00 CET, 90 min)
9	29-Nov	1-Dec	Session A4 Processing of Coffee
10	2-Dec	8-Dec	Session A4 Processing of Coffee
11	9-Dec	15-Dec	Session A4 Processing of Coffee
12	16-Dec	19-Dec	Session A4 Processing of Coffee
12	19-Dec-24		Virtual Classroom 4 (15:00 CET, 90 min)
	23-Dec	5-Jan	Christmas Break
13	6-Jan	12-Jan	Session A5 Trade
14	13-Jan	19-Jan	Session A5 Trade
15	20-Jan	23-Jan	Session A5 Trade
15	23-Jan-25		Virtual Classroom 5 (15:00 CET, 90 min)
15	24-Jan	26-Jan	Session A6 Sustainability and Climate Change
16	27-Jan	2-Feb	Session A6 Sustainability and Climate Change
17	3-Feb	9-Feb	Session A6 Sustainability and Climate Change
17	13-Feb-24		Virtual Classroom 6 (15:00 CET, 90 min)
17	3-Feb	9-Feb	Final Assessment
18	10-Feb	16-Feb	
19	17-Feb	23-Feb	
19	23-Feb-25		Deadline: Submission of Final Assignment (midnight CET)
20	24-Feb	6-Mar	Closing break, Individual office hours
21	6-Mar-25		Virtual Classroom: Closing (15:00 CET, 90 min)

*ECTS = European Credit Transfer System. ECTS is a standardized and comparable student performance assessment system across Europe. One credit is awarded for a workload of 25 - 30 hours (contact time and self-study).

Assessment

Assessment after each module:

- **Practical Module Assessment.** Students receive coffee samples from ZHAW CEC and will conduct a sensory evaluation project.
- **Final Module Exam:** Multiple Choice Questions online test
- **Attendance and Completion:** Virtual Classrooms, Live-Lab-Sessions and Session Quizzes need to be attended and completed (at least 80%)



Insights from Module Instructors



Dr. Samo Smrke

Research Associate and
Course Instructor

Module B

The Coffee Bean

Transformation and Composition

Module B			
Week	Start date	End date	Topic
1	3-Mar-25		Course start
1	6-Mar-25		Virtual Classroom: Introduction (together with Module A Closing VC)
1	3-Mar	9-Mar	Introduction / Session B1 Roasting and Physical Transformation
2	10-Mar	16-Mar	Session B1 Roasting and Physical Transformation
3	17-Mar	20-Mar	Session B1 Roasting and Physical Transformation
3	20-Mar-25		Virtual Classroom 1 (15:00 CEST, 90 min)
3	21-Mar	23-Mar	Session B2 Roasting and Chemical Transformation
4	24-Mar	30-Mar	Session B2 Roasting and Chemical Transformation
5	TBD		Extra Virtual Classroom with Samo Smrke
5	31-Mar	6-Apr	Session B2 Roasting and Chemical Transformation (Expo)
6	7-Apr	13-Apr	Session B2 Roasting and Chemical Transformation
6	10-Apr-25		Virtual Classroom 2 (12:00 CEST, 90 min)
6	11-Apr	21-Apr	Session B3 Grinding
7	14-Apr	20-Apr	Session B3 Grinding
8	21-Apr	24-Apr	Session B3 Grinding
8	24.04.2025		Virtual Classroom 3 (15:00 CEST, 90 min)
8	25-Apr	27-Apr	Session B4 Freshness
9	28-Apr	4-May	Session B4 Freshness
10	5-May	8-May	Session B4 Freshness
10	8-May-25		Virtual Classroom 4 (15:00 CEST, 90 min)
10	9-May	11-May	Virtual Lab Session: Preperation
11	12-May	18-May	Virtual Lab Session: Preperation
12	19-May	22-May	Virtual Lab Session: Preperation
12	22-May-25		Virtual Lab Session (14:00 CEST, 120 min)
12	23-May	25-May	Session B5 Health
13	26-May	1-Jun	Session B5 Health
14	2-Jun	5-Jun	Session B5 Health
14	5-Jun-25		Virtual Classroom 5 (15:00 CEST, 90 min)
14	6-Jun	8-Jun	Session B6 Soluble Coffee and Decaffeinated Coffee
15	9-Jun	15-Jun	Session B6 Soluble Coffee and Decaffeinated Coffee
16	16-Jun	22-Jun	Session B6 Soluble Coffee and Decaffeinated Coffee
17	23-Jun	4-Jul	Session B6 Soluble Coffee and Decaffeinated Coffee (WOC)
17	4-Jul-24		Virtual Classroom 6 (15:00 CEST, 90 min)
16	16-Jun	22-Jun	Final Assessment
17	23-Jun	29-Jun	
18	30-Jun	6-Jul	
19	7-Jul	13-Jul	
20	14-Jul	20-Jul	
20	20-Jul-25		Deadline: Submission of Final Assignment (midnight CEST)
22	6-Aug-25		Virtual Classroom: Closing (15:00 CEST, 90 min)

Insights from Module Instructors



**Dr. Marco
Wellinger**

Research Associate and
Course Instructor

Module C

The Coffee Cup

Extraction and Sensory Evaluation

Module C			
Week	Start date	End date	Topic
1	4-Aug-25		Course start
1	6-Aug-25		Virtual Classroom: Introduction (together with Module B Closing VC)
1	4-Aug	10-Aug	Introduction, C1 Extraction and Brewing
2	11-Aug	17-Aug	Session C1 Extraction and Brewing
3	18-Aug	24-Aug	Session C1 Extraction and Brewing
4	25-Aug	28-Aug	Session C1 Extraction and Brewing
4	28-Aug-25		Virtual Classroom 1 (15:00 CEST, 90 min)
4	29-Aug	31-Aug	Session C2 Brewing Water
5	1-Sep	7-Sep	Session C2 Brewing Water
6	8-Sep	11-Sep	Session C2 Brewing Water
6	11-Sep-25		Virtual Classroom 2 (15:00 CEST, 90 min)
6	12-Sep	14-Sep	Session C3 Drip and Immersion
7	15-Sep	21-Sep	Session C3 Drip and Immersion
8	22-Sep	25-Sep	Session C3 Drip and Immersion
8	25-Sep-25		Virtual Classroom 3 (15:00 CEST, 90 min)
8	26-Sep	28-Sep	Session C4 Espresso Machine
9	29-Sep	5-Oct	Session C4 Espresso Machine
10	6-Oct	9-Oct	Session C4 Espresso Machine
10	9-Oct-25		Virtual Classroom 4 (15:00 CEST, 90 min)
10	10-Oct	12-Oct	Session C5 Capsules
11	13-Oct	19-Oct	Session C5 Capsules
12	20-Oct	23-Oct	Session C5 Capsules
12	23-Oct-25		Virtual Classroom 5 (15:00 CET, 90 min)
12	24-Oct	26-Oct	Live Lab Preparation
13	27-Oct	2-Nov	Live Lab Preparation
14	3-Nov	6-Nov	Live Lab Preparation
14	6-Nov-25		Live Lab Session (14:00 CET, 120 min)
14	7-Nov	9-Nov	Session C6 Sensory Evaluation
15	10-Nov	16-Nov	Session C6 Sensory Evaluation
16	17-Nov	23-Nov	Session C6 Sensory Evaluation
17	24-Nov	27-Nov	Session C6 Sensory Evaluation
17	27-Nov-25		Virtual Classroom 6 (15:00 CET, 90 min)
17	28-Nov	30-Nov	Final Assessment
18	1-Dec	7-Dec	
19	8-Dec	14-Dec	
19	14-Dec-25		Deadline: Submission of Final Assignment (midnight CET)
21	8-Jan-26		Virtual Classroom: Closing (15:00 CET, 90 min)

Alumni - Testimonials

«Incredible course, well presented, an abundance of information, and scientifically backed. »

«I liked being able to study as my schedule allowed and the virtual classroom was a great way to keep me on track. Almost all of the experts that contributed to the virtual classrooms were excellent, and this really impressed me.»

«If you want to understand the science of why coffee tastes the way it does [...] then this is for you.»

Apply here:

www.zhaw.ch/icbt/cas-coffee-excellence



Course Start
30 Sep 24
Applications
until 15 Sep

Enrollment Info

Admission requirements

- University Degree
- 2 years of professional experience (in the coffee industry)
- Good English skills

- Admission **without** a University Degree: As above but with **admission interview**.

Apply here:

www.zhaw.ch/icbt/cas-coffee-excellence

Course Start
30 Sep 24
Applications
until 15 Sep

Application process

- 1. Online application:** Complete the application form, upload the required supporting documents and submit it on time.
- 2. Confirmation:** You will receive a confirmation of receipt by e-mail once you have submitted your online application.
- 3. Application screening:** If your application is complete and received by the deadline, it will be reviewed by the course management.
- 4. Information about admission decision:** Admission or rejection.
- 5. Application fee:** A non-refundable processing fee of CHF 600 is charged for the application. This fee is due only once your application is approved. Payment of the fee is only possible by credit card (Visa, MasterCard) or PostFinance Card.

Payment schedule

Course Start
30 Sep 24
Applications
until 15 Sep

1.Registration fee: CHF 600.- upon admission by credit card.

2.Tuition fee for each module: CHF 2400.-

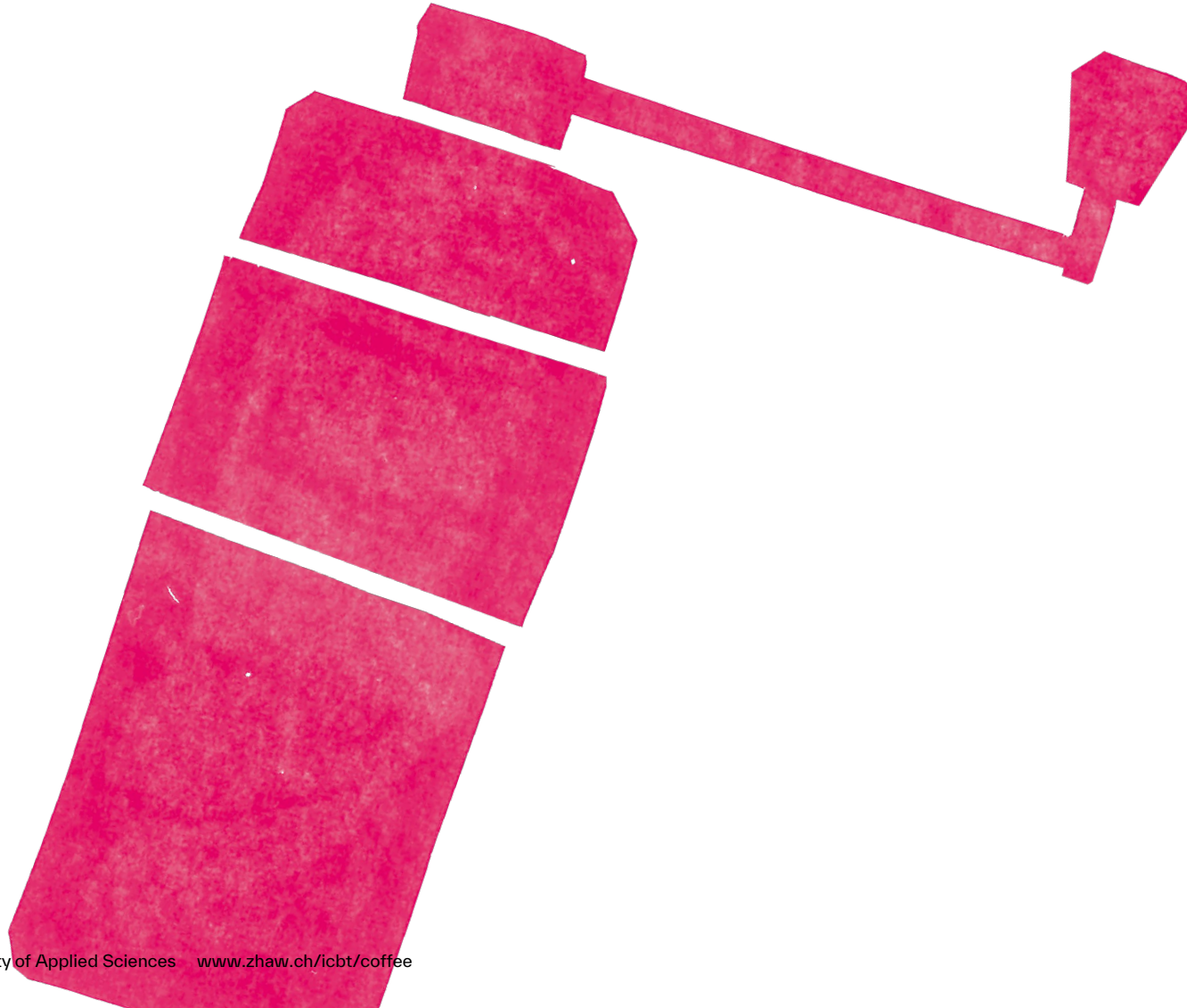
The payment is due upon start of each module. Payment by credit card, invoice on request.

A 5% discount is given, if total course fees (CHF 7200.-) are paid before the course start 30 Sept 2024.

Apply here:

www.zhaw.ch/icbt/cas-coffee-excellence

Your Questions



Coffee Science and Education Summit CSES



Interested in sponsoring the event?

Talk to Sabine stuf@zhaw.ch



- **2-day event at ZHAW in Zurich (Campus Reidbach)**
- **Vision:** Provide a platform for coffee professionals, researchers, educators and industry leaders to share latest research results and valuable knowledge.
- **Format:** Lectures, tasting sessions, workshop/seminars, panel-discussion, lightning talks, and fun side activities
- Only 120 tickets available
- **Website available soon!** Follow our social media to stay updated.

Get in touch

www.zhaw.ch/icbt/coffee



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