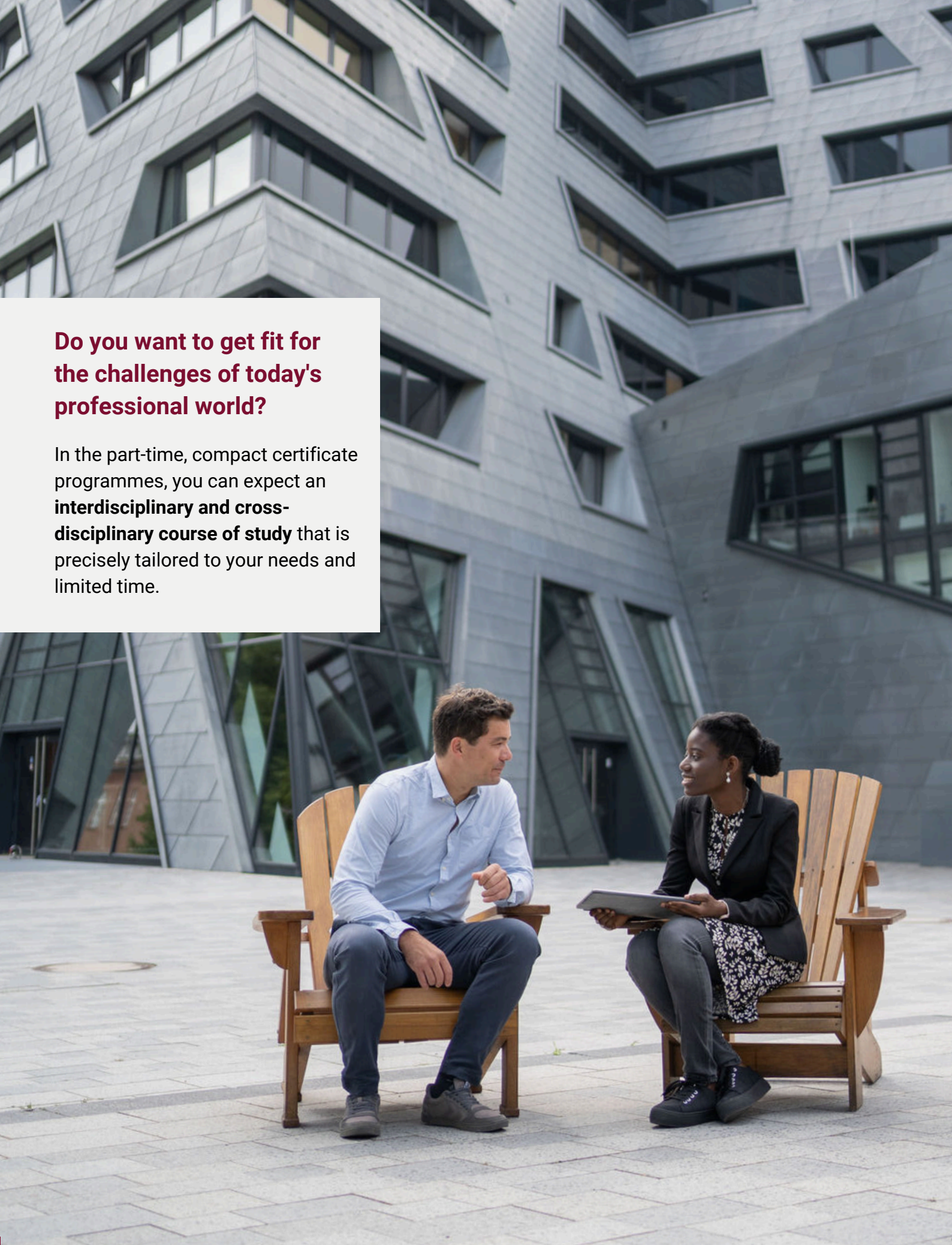
CERTIFICATE
SAFE AND SUSTAINABLE BY DESIGN

LEUPHANA
Professional School



Do you want to get fit for the challenges of today's professional world?

In the part-time, compact certificate programmes, you can expect an **interdisciplinary and cross-disciplinary course of study** that is precisely tailored to your needs and limited time.

DEAR PROSPECTIVE STUDENT,

Thank you very much for your interest in the certificate programme Safe and Sustainable by Design.

This programme is designed for professionals who wish to deepen their expertise in integrating safety and sustainability principles into product design, development and decision-making. Over the course of two semesters, you will explore an interdisciplinary combination of sustainable chemistry concepts, resource management, and life cycle-based assessment strategies, with a strong focus on practical applications across different sectors. You will learn how to apply SSbD principles to anticipate environmental and social impacts while ensuring alignment with regulatory and industry standards.

The programme is delivered online, giving you maximum flexibility.

We look forward to welcoming you to the programme and are happy to advise you personally if you have any questions.

ANASTASIA POLYZOU
Study programme coordinator

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PREPARE YOURSELF
TO LEAD SUSTAINABLE TRANSFORMATION

The certificate **Safe and Sustainable by Design (SSbD)** is tailored for professionals who want to strengthen their understanding of sustainability and position themselves at the forefront of transforming products, processes, and systems.

You will begin the programme with an introduction to the foundations of sustainable chemistry before progressing to a holistic exploration of water, material, and metal resource management. You will then work with the SSbD framework and life cycle-based assessment tools that support evidence-based innovation and sustainable design decisions.

Upon completion, you will be equipped with the knowledge and skills to apply SSbD strategies in your professional field, supported by expertise in sustainable chemistry, resource management, circular economy concepts and integrated sustainability assessment.

AT A GLANCE	
Degree	Certificate of Advanced Studies (CAS) or optionally a certificate of attendance
Credit Points	15
Length of study	2 semesters
Language	English
Start date	March
Application deadline	January 15th
Costs	2,580€ total plus the current semester fees of approx. 255€ per Semester (Semester fees only apply if you decide to acquire ECTS)
Admission requirements	Completed first university degree, at least one year of relevant professional experience, advanced knowledge of English
Programme Director	Prof. Dr. Klaus Kümmerer

FUTURE-ORIENTED QUALIFICATION

As political and legislative frameworks increasingly call for sustainable production and responsible resource use, professionals capable of applying SSbD principles are in high demand across industries and organisations. The certificate prepares you for roles in sustainable product development, resource and materials management, policy implementation, innovation governance and life cycle-based decision-making.

You will gain targeted knowledge in sustainable chemistry, circular economy strategies, resource efficiency, and life cycle assessment – competencies aligned with current and emerging EU policies. Through case studies and practice-oriented exercises, you will strengthen your ability to design and evaluate safer and more sustainable products, materials and processes.

This qualification broadens your career opportunities in industry, public institutions, NGOs, consultancy and international organisations and empowers you to actively shape sustainable transformation.

COURSE OF STUDY

The certificate programme is offered annually and comprises a total workload of 15 ECTS credits, completed over two semesters. The programme is delivered online, allowing you to integrate your studies smoothly into your professional and personal schedule.

A diverse range of digital learning formats and personalised support ensures a well-structured online learning experience tailored to your needs.

Would you like to take a look at the semester schedule to compare it with your personal calendar?
No problem, please contact us and we will send you the current schedule.

All materials for synchronous sessions and self-study are provided via our online learning platform. You will interact with peers and faculty worldwide through forums, webinars and group work activities, and you will also submit assignments and prepare course materials through the platform.

MODULES AND CONTENTS

F1 SC	CONCEPTS OF SUSTAINABLE CHEMISTRY

- Introduction to Sustainable Chemistry and its role in product design
- Comparison of Green Chemistry and Sustainable Chemistry principles
- Holistic views of chemical products across the life cycle

F8 SC	RESOURCES, RECYCLING AND CIRCULAR ECONOMY

- Sustainable Water Management and Circular Water Economy: adapted water management strategies, opportunities and limitations of water reuse, integrating sustainable cehmistry and water quality management to reduce micropollutants
- Safe-and-Sustainable-by-Design: SSbD in the development of chemicals, materials, products and processes, safety and sustainability assessments, SSbD and circular economy principles and broader chemistry frameworks
- Metals, Recycling and Circular Strategies: metals in clean technologies and climate change mitigation, fundamentals of metal supply, demand, price dynamics and recycling opportunities and challenges, circular strategies, policy frameworks and system-level approaches to sustainable metals management

F9 SC	SUSTAINABILITY ASSESSMENT

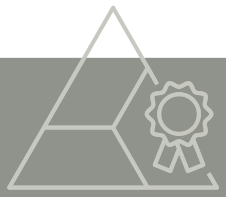
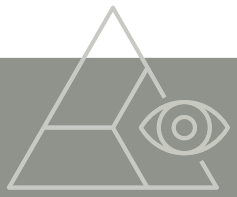
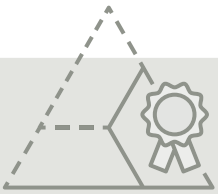
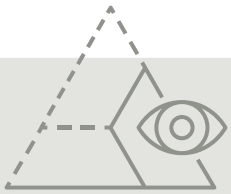
- Life cycle-based approaches to environmental, social and economic sustainability
- Fundamentals of LCA, LCC and Social LCA
- Practical exercises in sustainability modelling and evaluation

All modules can also be taken individually if interested. If you pass the exams, the ECTS credits earned can later be credited to degree programmes, e.g. to the Master in Sustainable Chemistry.

FORMS OF PARTICIPATION
FOR YOUR FURTHER EDUCATION

Upon successful completion of all module examinations, you will be awarded a university Certificate of Advanced Studies with 15 ECTS credits at Master's level.

Alternatively, you may choose to waive examinations and receive a certificate of attendance without credit points.

	 Certificate studies	 Certificate participation	 Module studies	 Module participation
Immatriculation	✓	✗	✗	✗
Examination	✓	✗	✓	✗
CP acquisition	✓	✗	✓	✗
Degree	**University certificate**	**Certificate of attendance**	**Confirmation of CP acquisition**	**Certificate of attendance**
Study fees	✓	✓	✓	✓
Semester fees	✓	✗	✗	✗

If you enrol as a student in the accredited certificate programme, you may benefit from advantages such as student discounts. If you choose the attendance-only option, you pay solely the tuition fees and no semester fees.

APPLICATION AND ADMISSION

The certificate programme begins in March each year. You have until 15 January to submit your application digitally using our application tool.

To meet the admission requirements for the certificate programme, you need

- a completed bachelor's degree
- relevant work experience of one year
- advanced knowledge of English

To the application website

You must submit the following application documents with your online application by the deadline:

- First University Degree
- Proof of English language skills
- Proof of one year relevant work experience

After you submit your application, we will review your documents and you will usually receive official notification in February. During the admission process, we will keep you informed of the individual steps and are always available to answer your questions.

It is also possible to take individual modules and to have them credited to the course at a later date, or to opt for the certificate participation. You can register for the modules, subject to availability, up until the start of the module in question.

At the beginning of your studies, you will receive all the information you need about the programme and have the opportunity to meet your fellow students and lecturers.

Do you have all the documents together?
We look forward to your application!

Are you unsure whether you fulfil the admission requirements or whether your documents are sufficient? We will be happy to advise you!

FEES AND FINANCING

The following fees apply for participation in the part-time Certificate Safe and Sustainable by Design:

- Tuition fees: €2,580
- Plus semester fee: approx. €255 (per enrolled semester, not for the certificate participation option)

At the beginning of your studies, you determine the payment method in consultation with the coordinator. Instalment and special payments are possible. We will invoice you for the tuition fees based on the information you provide. The semester fee is charged in advance by the university during enrolment.

It is also possible to attend individual modules.

Due to the current legal regulations, you can claim costs relating to your studies for tax purposes in Germany. Please ask your tax advisor!

Studying is not only to your own advantage. Investing in your professional development can also be beneficial for your employer. A discussion with your superiors can provide clarity here. Some students negotiate individual financing models with their employers. These can vary from offers of support for flexible working hours to granting days off for study purposes or full financing of studies. We will be happy to issue the invoices for the tuition fees directly to your employer if they cover (a portion of) the costs.

Arrange a personal consultation appointment by e-mail to clarify your questions about financing a part-time degree programme and to receive advice: psfinanzierung@leuphana.de

Is it worth the financial investment in a part-time certificate programme? What costs can I expect and how can I best manage them? There are many questions regarding the financing of a part-time course of study.

Before you start your part-time studies at the Professional School, we recommend that you create an individual financing plan. It may also be worth looking at possible scholarships and grants.

Information on funding and financing

CONTACT

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INDIVIDUAL COUNSELLING
on campus, via email, telephone or virtually through Zoom to evaluate whether the content of the programme meets your expectations. For a counselling interview, please select an appointment in our booking portal.

To the appointment booking

INFO DAY PART-TIME STUDY
Twice a year, we present the Certificate Safe and Sustainable by Design at the Leuphana Professional School's Info Day.

Dates and registration

DATES AND EVENTS
You can find the latest dates for (online) info events on our website at any time.

Dates and registration