

## ATTENDANCE FEE & ACCOMMODATION

The fee for this 5-day course is € 1990 plus German VAT, including all course materials. Your accommodation in Berlin has to be booked separately. Depending on your requirements we can arrange hotel accommodation in different categories.

By sending a registration you agree to pay the non-refundable deposit of € 500 according to the invoice that will be made available within the next five days. The total balance is due one week before beginning the course. The fee may be paid by bank transfer, credit card or check.

## APPLICATION DEADLINES

Applications are accepted on a first come first served basis. Our online registration form is available at [www.vlb-berlin.org/en/microbiology](http://www.vlb-berlin.org/en/microbiology). Since the number of participants is limited, early registration is highly recommended.

## CONTACT

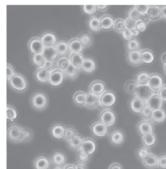
VLB Berlin, Seestrasse 13, 13353 Berlin – Germany  
Sandra Dounia, Phone +49 30 450 80 241,  
Fax +49 30 453 60 69, [brewmaster@vlb-berlin.org](mailto:brewmaster@vlb-berlin.org)

*Photo credit: fotolia.com*

## Training "Applied Microbiology"

1-week training course on practical microbiology for  
the brewing and beverage industry

14 to 18 November 2022, Berlin – Germany



**SCIENCE  
GENERATES  
QUALITY**

## TRAINING „APPLIED MICROBIOLOGY“

### COURSE OUTLINE

“Applied Microbiology“ is a one-week full-time training course providing up-to-date knowledge in the field of practical microbiology with relevance for the brewing and beverage industry.

It covers the basics of microbiology, laboratory techniques, as well as microbial sampling in theory and practice. The course is conducted in VLB’s microbiological training laboratory and in our pilot brewery.

### WHO SHOULD ATTEND?

The course addresses persons who work in the field of quality control in breweries, malt houses and for beverage producers. We recommend a basic knowledge of the brewing processes in general since this course will focus on the relevant microbiology only.

### ABOUT US

The Versuchs- und Lehranstalt für Brauerei in Berlin (Research and Teaching Institute for Brewing in Berlin), VLB, is a German institute focusing on beer brewing and beverage production. It was founded in 1883. Today around 145 people work at VLB in the fields of research, teaching, service and provision of information for the brewing, malting and beverage sectors and their supply industries.

The VLB has its roots in the German brewing industry but also works internationally. Customers all around the world take advantage of our training courses and of our broad experience in the fields of analyses and consulting.

### COURSE TOPICS

The following topics will be covered:

#### **Introduction to microbiological lab-work and analysis**

Characterisation, classification and identification of microorganisms with relevance to beer and beverages

#### **Microbiology lab work**

Sample preparation / analytics  
Preparations for light-microscope examinations, cell counting, staining, plating, sterilization, disinfection, etc.

#### **Microbiological quality control**

Sampling, different products, detection of contaminants, appraisal of results, microbial sampling in the brewery, weak points in breweries, hygienic design and cleaning, pre-mature yeast flocculation (PYF), yeast management

#### **Microorganisms**

Yeasts, bacteria, molds (morphological and physiological characteristics)

#### **Nutrient media**

Different types, preparation, incubation, evaluation

The course will be held at VLB Berlin. Our institute is located in the heart of Berlin – the German capital.

You can expect a mixture of lectures and practical work in our microbiological training laboratories. In addition we will visit a Berlin brewery with a special focus on microbiological sampling/control.