#### **ATTENDANCE FEE & ACCOMMODATION**

The fee for this 5-day course is 2150 Euro plus German VAT, including all course materials and lunch package.

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 nonrefundable deposit of  $\in$  500 according to the invoice that will be made available within the next five days. The total balance is due two weeks before beginning the course. The fee may be paid by bank transfer or credit card.

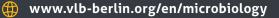
# **APPLICATION DEADLINES**

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

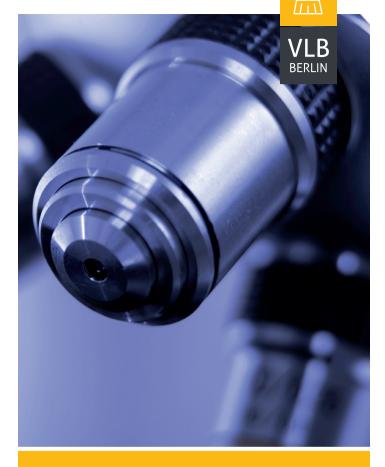
### CONTACT

Kombucha: Starter Cultures / Process Development / Analysis









# Training "Applied Microbiology"

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

18 to 22 November 2024, Berlin – Germany



#### TRAINING "APPLIED MICROBIOLOGY"

# **COURSE OUTLINE**

"Applied Microbiology" is a 5-day 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 beverage production. 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 135 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**

# Introduction to microbiological lab-work and analysis

Characterisation, classification and identification of microorganisms with relevance to beverages, PCR, Flowcytometry

# Microbiology lab work: Sample preparation / analytics

Preparations for light-microscope examinations, cell counting, staining, plating, sterilization, disinfection, etc.

#### Microorganisms

Yeasts, bacteria, molds (morphological and physiological characteristics)

#### Nutrient media

Different types, preparation, incubation, evaluation

#### 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, yeast management

With reference to beer and other fermented beverages (e.g. Kombucha)

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.