



TRAINING THAT DEVELOPS  
*REAL CAPABILITY*



## Basic Microbiology for the Food Industry

FS003

## Basic Microbiology for the Food Industry

Under European Food Safety Regulation 178/2002, Article 14 it states “Food shall not be placed on the market if it is unsafe or unfit for human consumption.” As bacteria are the major cause of food being unsafe, it is essential that those persons responsible for producing safe food have some knowledge of bacteria. Historically the majority of personnel who held these responsibilities studied a Food Science or Microbiology related discipline in a third level College or University. This however is no longer the case as many graduates with engineering, supply chain and financial backgrounds or non-graduates who have progressed to managerial positions are now in charge of food manufacturing processes and factories where the biggest threat to the business or the consumer is E. coli, Salmonella, Listeria just to name a few.

If one is in charge of producing food that is governed by law where microbiological criteria are specified, it is vital to know ones legal obligations. This course will give delegates an understanding of how bacteria grow, unique characteristics of some bacteria and most importantly how they can be controlled. A simple method of microbiological risk assessment will be explained so that risk based decisions can be made which will be in the interest of the business and consumer alike.

A lot of microbiological testing is carried out as part of validation, monitoring, verification and positive release activities. What often causes problems is how to interpret micro results when received from an external laboratory. Micro results are either acceptable, borderline or unacceptable. Knowing which category the results belong to can often be challenging. USDA regulations use the phrase “management components” regarding food safety. Monitoring, Corrective Action and Verification are the three management component “elements”. Knowing what corrective action to be taken when micro results are borderline or unsatisfactory is critical as corrective action and preventive action (CAPA) are paramount in the compliance or improvement processes. The FSAI Guidance Note 3 for Interpretation of Results of Microbiological Testing for Ready to Eat (RTE) food placed on the market will be the main reference source for this training course.

## Duration & Price

Duration: 1 day

Delivery mode: This programme is available In-Company

## Dates & Locations

*In-Company training programmes are customised for your organisations specific needs. Most In-Company training is now delivered virtually.*

## In-Company Training

Please [contact us](#) for more information on our In-Company training options

## What's covered?

- Delegate/Tutor Introduction
- Course Introduction
- History of Microbiology
- Bacteria Classification / Shapes
- Bacteria Cell Structure
- Bacteria Spore Formation
- Bacteria Growth Requirements
- Disease Causing Bacteria:
  - Food Poisoning Causes
  - Food Hygiene
  - Major Pathogens
  - Food Spoilage Bacteria
- Microbiological Risk Assessment Methodology
- Microbiological Criteria of Foodstuffs (2073/2005) – Chapter 1 & 2
- Microbiological criteria for water 2020/2184
- FSAI Guidance Note 3 – Guidelines for the Interpretation of Micro Test results
- Case Study Review - interpretation of results against FSAI GN 3
- Course Review / Evaluation

## Who should participate?

- General management who need a basic knowledge of bacteria & food poisoning
- Quality / Technical personnel who want to refresh their micro knowledge
- HACCP / Food Safety team member who may not have a Food Science background
- Maintenance / Engineering personnel who manage process intervention in a high risk environment
- Food manufacturing supervisory personnel who make decisions relating to food safety
- Technical personnel who need to know the Microbiological Criteria of Foodstuffs (2073/2005) & FSAI guidance note
- Product recall personnel who need to understand the significance of microbiological contamination

## What will I learn?

Participants achieve the following learning outcomes from the programme;

- Be familiar with basic bacteria classification and structure
- Understand spore formation and the difficulties it poses for the food sector
- Understand the requirements for bacteria growth and survival
- Understand the major disease causing bacteria (Pathogens) and how they can be controlled
- Understand how to carry out a microbiological risk assessment
- Be familiar with the three types of micro-organisms
- Be familiar with EU regulation on the microbiological criteria of foodstuffs (2073/2005)
- Be able to use Guidance Note 3 to interpret microbiology test results for RTE foods

## How do we train and support you?

### **In-House Courses**

For In-House courses, the tutor will contact you in advance to discuss the course programme in more detail in order to tailor it specifically for your organisation.

### **Course Manual**

Delegates will receive a very comprehensive course manual.

## Tutors



**Brian Robinson**  
[View Profile](#)



**Denis Kiely**  
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**Edel Jones**  
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**Joan Brien**  
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**Tom Keane**  
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## What Our Learners Say

We believe in excellence through transparency and continuous improvement. That's why we invite all our delegates to share their experiences on [CourseCheck.com](https://www.coursecheck.com), an independent platform dedicated to genuine, unfiltered feedback. Learner insights help us not only to enhance our training programmes but also empower potential learners to make informed decisions. Click on the link below to read firsthand experiences and testimonials from past learners.



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