



**MiChem Dynamics**  
LEADING CHANGE

## INTRODUCTION TO BASIC MICROBIOLOGY TRAINING (FOR NON-MICROBIOLOGISTS)

Microbial contamination in the food industry is of great concern. Many organisations do not have their own in-house microbiology expert and depend on third party laboratories for microbial testing and advice. The organisation however, will not be able to identify, assess and control microbial hazards without some understanding of these food safety hazards.

During this course we will discuss the characteristics and growth of microorganisms, what methods laboratories use to identify them and most importantly, how to analyse the reports we receive back from the laboratories.



**THE COURSE WILL RUN OVER A PERIOD OF 1 DAY**

### LEARNING OUTCOMES:

- Understanding the terminology and “jargon” to enable informed discussion of microbiological issues.
- Understanding the types and significance of microorganisms in the food industry.
- Learning about the causes and effects of spoilage.
- Recognising the role of microbiology in QC.
- Methods of controlling microorganisms in food processing and other food environments.
- Basic skills in interpreting microbiological test results.

### WHO SHOULD ATTEND THIS COURSE:

- QA / Technical / Production employees who require basic microbiological knowledge.

### MINIMUM ENTRY REQUIREMENTS

- Fluency in English writing and reading skills

### TUITION

- Training material included (English)
- Certificate of attendance or competence (based on outcome of assessment) will be issued on successful completion of training.

### COURSE CONTENT

- Introduction
- The characteristics of microorganisms
- Microbial growth
  - Bacterial cell reproduction
  - Conditions affecting microbial growth (FAT TOM)

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- Examples of bacteria FAT TOM requirements
- Microbial identification techniques
  - General – microbial identification techniques
  - Pour plate technique
  - Spread plate technique
- Cleaning, disinfection and sanitising
- Environmental monitoring
  - General
  - Surface swabs
  - Air sampling
- Understanding your microbiological test report
  - General
  - Present or absent
  - Cfu/g or cfu/ml
  - Results of less than cfu/g – written as <cfu
  - What about greater than results – written as >cfu

