

# Essential GMP Skills: Environmental Monitoring & Microbiological Awareness

Skills and Training Laboratories Training Course  
Sycamore House  
Cell and Gene Therapy Catapult

## Essential GMP Skills:

### Environmental Monitoring & Microbiological Awareness

This one-day classroom and laboratory-based course provides hands-on training for GMP production staff. It ensures participants are able to maintain aseptic conditions, follow environmental monitoring practices, meet regulatory requirements, and support safe pharmaceutical and biopharmaceutical manufacturing processes.

#### Learning objectives:

- To explain and apply fundamental principles of GMP to ensure compliance with regulatory requirements.
- To describe and practice Environmental Monitoring (EM) for monitoring and controlling the manufacturing environment to prevent contamination
- To acquire knowledge of microbiology, including microorganism types, growth conditions, and the associated risk mitigation and the impact on product quality and safety.
- Understand the requirements for maintaining cleanrooms and controlled environments, including proper gowning and hygiene practices.
- Familiarizing self with appropriate sampling techniques and testing procedures for microbiological and particulate monitoring.
- Develop skills in identifying and assessing potential risks related to microbiological contamination in manufacturing processes.
- Understand the importance of accurate and comprehensive documentation to demonstrate compliance and traceability.
- Learn how to respond to deviations or non-compliance issues and implementing corrective and preventive actions to address root causes.
- Ensure relevant regulatory guidelines and requirements related to environmental monitoring and microbiology in GMP settings are applied correctly.



# Essential GMP Skills:

## Environmental Monitoring & Microbiological Awareness

<b>Course title</b>	<b>Essential GMP Skills: Environmental Monitoring &amp; Microbiological Awareness</b>
<b>Course level</b>	Introductory
<b>Course fee (per delegate)</b>	£1250 + VAT
<b>Course dates</b>	Available upon request
<b>Venue</b>	CGT Catapult Skills and Training Laboratories, Sycamore House, Stevenage

### Who should attend

Those new to regulated industries—biotherapeutics, ATMPs and pharmaceuticals—as well as staff in Manufacturing, QC, QA, cleanroom operations, validation, compliance, engineering and maintenance seeking stronger EM and microbiology awareness.

### Pre-course expectations and recommendations

- Delegates will benefit if they have a basic understanding of facility cleaning process and monitoring and GMP. For delegates without this understanding the [Facility Cleaning](#) and [Essential GMP Skills GMP Overview and an Introduction to the world of GxP](#) courses are recommended.
- If you are unsure if this course is suitable for you, please contact our Skills team via [skillstraininglabs@ct.catapult.org.uk](mailto:skillstraininglabs@ct.catapult.org.uk) we will be happy to advise.
- Before starting this course, participants will be required to complete and sign the course-specific registration form.

### Assessment

Delegates will be encouraged to participate in discussions and reflect on activities at all times. You will be asked to complete a post course questionnaire at the end of the course.

# Agenda

Time	Essential GMP Skills: Environmental Monitoring & Microbiological Awareness
9.00 - 10.00	<p><b>Welcome, Introductions &amp; STL Induction</b></p> <p><b>Session 1: Overview of Good Manufacturing Practices (GMP)</b></p> <ul style="list-style-type: none"> <li>- Definition and importance of GMP within Regulatory framework and guidelines for EM.</li> </ul> <p><b>Session 2: Introduction to Microbiology</b></p> <ul style="list-style-type: none"> <li>- Basics of microbiology and Types of microorganisms relevant to manufacturing</li> </ul>
10.00 - 11.15	<p><b>Session 3: Microbial Growth and Contamination</b></p> <ul style="list-style-type: none"> <li>- Factors affecting microbial growth and Common sources of contamination in manufacturing</li> </ul> <p><b>Session 4: Cleanrooms and Controlled Environments</b></p> <ul style="list-style-type: none"> <li>- Review of design and classification of cleanrooms and Importance of environmental controls</li> </ul>
11.15 - 11.30	<b>BREAK</b>
11.30 - 13.00	<p><b>Environmental Monitoring Techniques</b></p> <p><b>Session 6: Sampling Techniques in Environmental Monitoring</b></p> <ul style="list-style-type: none"> <li>- Methods for air, surface, and personnel sampling</li> <li>- Proper sampling procedures</li> </ul> <p><b>Microbiological Testing and Control Measures</b></p> <p><b>Session 7: Microbiological Testing Methods</b></p> <ul style="list-style-type: none"> <li>- Overview of testing methods (e.g., microbial enumeration, identification) and basic interpretation of test results</li> </ul> <p><b>Session 8: Control Measures and Preventive Actions</b></p> <ul style="list-style-type: none"> <li>- Strategies for preventing microbial contamination including patterns of use of disinfectants and sanitizers</li> </ul>
13.00 - 13.45	<b>LUNCH</b>
13.45 – 17.00 Including afternoon break	<p><b>Practical Applications and Case Studies</b></p> <p><b>Session 9: Practical Applications of EM and Microbiology</b></p> <ul style="list-style-type: none"> <li>- Hands-on exercises for sampling and testing techniques</li> <li>- Review of case studies</li> <li>- Examples of records related to EM and microbiology</li> <li>- Compliance and Continuous Improvement</li> <li>- Discussion on preparation for inspections</li> </ul>
17.00 - 17.30	Day Review, feedback and closure

## Address:

Sycamore  
House  
Leyden Road  
Stevenage  
SG1 2BP

## How to find us

**Driving** – to park in our carpark use the vehicle security gate on Leyden Road

What3words ///slip.cakes.owners

**By taxi or on foot** - use the pedestrian security gate on Gunnells Wood Road

What3words ///parent.risk.lines

**Once on site proceed to the main reception located on the south-west side of the building**

## No smoking

Please be aware that Stevenage Science Park is a no smoking site.

## Contact us

We want you to enjoy this training course, but if you have any concerns, please do not hesitate to contact us at [skillstraininglabs@ct.catapult.org.uk](mailto:skillstraininglabs@ct.catapult.org.uk).

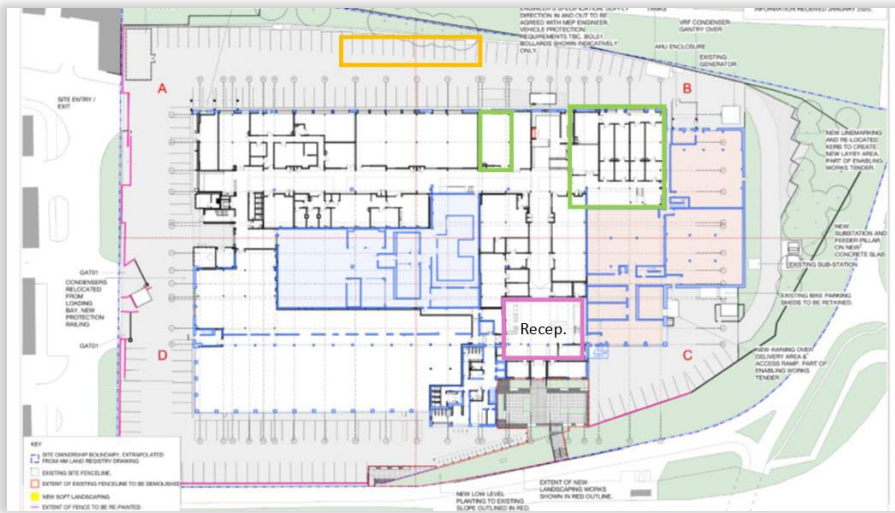
Sycamore House is located just outside Stevenage town centre.

Sycamore House is close to the A1(M) via junction 7, the connectivity of the campus by car is considered good. Stevenage is well connected to major hubs. Cambridge is only 40 kilometres away and reachable within 40 minutes by train, and it takes only a 21 - minute train journey to reach King's Cross in London. In addition, Luton and Stansted international airports are reachable within 40 minutes and Heathrow within 1 hour.

## Parking

There are designated car parking spaces available to CGT Catapult staff and visitors to Sycamore House including one electric charging parking space. Car parking is available on a first-come, first-served basis. Our parking spots are marked with the Catapult logo/sign. There are additional parking spots for visitors that is shared among the other tenants in the building. These spots can be booked via building reception in advance.

Additional parking at Stevenage Football Club is available for nine cars for Catapult employees and visitors – see map below.



Area marked in orange is car parking allocated to CGT Catapult employees on a first-come, first-served basis.

The building entrance / reception is marked with purple, and the CGTC ground floor areas, including our Skills and Training Laboratories are marked in Green.

## Walking and cycling

Although the walk from the town centre and station takes approximately 25 minutes, there are continuous footpaths and cycleways, and safe crossings all the way to our entrance.

There are 33 cycle spaces for general use. There is a bike store located at the front of the building entrance accessed via Gunnells Wood Road. The spaces for the bikes are available on a first-come, first-served basis.



## Car Parking at Stevenage Football Ground

Map showing the additional parking available at the East and West areas of Stevenage football ground.

