



## Online Course 12 D „Maintenance and Operational Support“

<b>Belonging:</b>	GMP for Engineers
<b>Learning Goal:</b>	Find out about preventive maintenance, the procedure for deviations, changes and CAPA as well as the topics of requalification and GMP-compliant documentation during operation.
<b>Target Audience:</b>	Project managers, technicians and engineers responsible for planning, operation or for qualification, operators, quality assurance
<b>Processing Time:</b>	Approx. 45 min.
<b>Personal Certificate:</b>	After successfully completing the final test

### Concept:

In this course unit you will learn more about preventive maintenance, the procedure for deviations, changes and CAPA and the topics of re-qualification and GMP-compliant documentation during plant operation.

Even with a pharmaceutical facility, it is necessary to take regular action to avoid wear and tear and to carry out necessary modifications and maintenance work to maintain the target condition. Only regularly maintained systems and equipment fulfil the intended purpose, i.e. are in a qualified condition.

A maintenance concept should contain an optimal mixture of failure elimination, preventive, condition-oriented, predictive and risk-based maintenance in order to ensure maximum availability.

Data integrity is also a central element of the pharmaceutical quality assurance system. The importance is reflected in regulatory documents of the WHO, MHRA, EMA and FDA and is summarized in this course unit.

### Content:

- 9 Chapters
- 2 Exercises
- 1 Summary
- 1 Final test

#### *Learning Component 1: Introduction*

- Welcoming address
- Everyday example
- Overview of the course unit
- Life cycle of a facility / operation of a facility during production
- External factors

#### *Learning Component 2: Preventive Maintenance*

- Maintenance measures and regulations
- SOPs
- Various areas

- Everyday Example

*Learning Component 3: Calibration and Recalibration*

- Definitions of terms
- Exercise
- Master SOP

*Learning Component 4: Requalification*

- Why does the qualification have to be repeated?
- When must the qualification be repeated?
- Interaction of different tools for maintaining the qualification status

*Learning Component 5: Deviations, Changes and CAPAs*

- Change management (change control)
- Divergences
- CAPA process

*Learning Component 6: GMP Compliant Documentation*

- Two fundamentally different types of documents
- Exercise

*Learning Component 7: Traceability*

- ALCOA principle
- Traceability matrix

*Learning Component 8: Limitation of Liabilities*

- Limitations of Liability (LLA)
- What does the LLA must include?

*Learning Component 9: Key Points at a Glance*

- Exercise
- Summary of the course unit

*Final Test*

**Technical Information:**

You can easily access the e-learning tool GMP:READY - GMP for Engineers on the internet via user name/password.

Important: User name and password will be set up for the designated trainee. End-user has to be specified when placing the order!

The course is displayed on the internet via FIT<sup>2</sup> Coach.