

## Decision Support for Maintenance Logistics (E680090)

**Course size** *(nominal values; actual values may depend on programme)*

**Credits 4.0** **Study time 120 h**

**Course offerings in academic year 2024-2025**

A (semester 2) English Kortrijk

**Lecturers in academic year 2024-2025**

Claeys, Dieter TW18 lecturer-in-charge

**Offered in the following programmes in 2024-2025**

Programme	crdts	offering
<a href="#">Master of Science in Smart Operations and Maintenance in Industry</a>	4	A

**Teaching languages**

English

**Keywords**

**Position of the course**

This course is part of the interuniversity subsequent master's programme *MSc in Smart Operations and Maintenance in Industry*, offered by KU Leuven and Ghent University.

**Contents**

This course discusses some advanced methods and approaches for decision-making support on maintenance activities and their related processes such as staffing and spare parts management. Focus is on the tactical level.

- Reliability and maintenance modeling
- Fitting probability distributions to data, use of data mining
- Maintenance decision models and optimization
- Human resources capacity planning
- Spare parts management
- Operational aspects: remote maintenance, scheduling, ...

Various models will be presented in the course. The main goal is to understand the applicability and shortcomings of the models and being able to apply them.

**Initial competences**

Operations Management Strategies (6 ECTS)

**Final competences**

- 1 Understand models for maintenance strategy optimisation and deployment.
- 2 Be able to apply models for maintenance strategy optimisation and deployment.
- 3 Have insights in the data-driven character of the modelling approaches.

**Conditions for credit contract**

This course unit cannot be taken via a credit contract

**Conditions for exam contract**

This course unit cannot be taken via an exam contract

**Teaching methods**

Seminar, Lecture, Independent work

**Study material**

None

**References**

## **Course content-related study coaching**

### **Assessment moments**

end-of-term and continuous assessment

### **Examination methods in case of periodic assessment during the first examination period**

Written assessment

### **Examination methods in case of periodic assessment during the second examination period**

Written assessment

### **Examination methods in case of permanent assessment**

Assignment

### **Possibilities of retake in case of permanent assessment**

examination during the second examination period is possible

### **Calculation of the examination mark**

50% assignment; 50% exam