

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
Master of Science in Smart Operations and Maintenance in Industry	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