

IDENTIFICATION

Course code : ESI-SPI-CI-AG4-S8-UE1-EC6
ECTS : 1

DURATION

Lectures : 6
Tutorial classes : 4
Labs : 0
Total : 10

Project :
Personnal work :

ASSESSMENT

TEACHING MATERIALS

LANGUAGE

English

CONTACT

Kaies SOUIDI (RP) Nicolas TECHER (CEV Pro) nicolas.tech@gbh.fr
kaies.souidi@univ-reunion.fr

Modifié le : 14 juillet 2026

UE : UE8-PROD

COURSE : Industrial Performance

SCOPE OF THE COURSE

OBJECTIVES

Deepening the analysis and monitoring of industrial performance; Understanding, measuring, and improving the overall performance of a production system. Diagnosing, analyzing, critiquing, and proposing improvement actions at the scale of a process, line, workshop, or production organization. Consolidating their understanding of the interactions between production, quality, maintenance, and industrial organization; Mastering measurement and monitoring tools for industrial performance; analyzing gaps between expected and observed performance; identifying sources of losses, deviations, and dysfunctions; Proposing improvement levers adapted to the constraints of agri-food industries; Embedding performance improvement within a framework of operational excellence and continuous improvement.

COMPETENCE AND SKILLS

Define and characterize industrial performance using technical, economic, organizational, and qualitative indicators; Build, operate, and comment on a performance dashboard for monitoring; Calculate and interpret the main performance indicators of a production system; Analyze performance losses in a line, workshop, or process; Identify explanatory factors for a performance gap based on industrial data; Conduct a structured diagnosis combining production, quality, maintenance, and organization; Prioritize action levers based on their technical, economic, and organizational impact; Propose a realistic, well-argued, and context-adapted improvement plan for the agri-food sector; Use problem-solving and continuous improvement tools; Present an industrial performance diagnosis and defend recommendations

PROGRAM

1. Industrial performance : concepts, stakes, and positioning
2. Measuring and monitoring performance
3. Analyzing losses and diagnosing dysfunctions
4. Performance and process control
5. Performance, quality, and associated costs
6. Performance and equipment maintenance
7. Energy performance, materials, and sustainability
8. Continuous improvement and operational excellence
9. Applications and case studies in the agri-food industry

BIBLIOGRAPHY

Froment, G.F., Bischoff, K.B., and De Wilde, J. (2010). *Chemical Reactor Analysis and Design*. Wiley.

REQUIREMENTS

— Transport phenomena : Basic concepts of mass and heat transfer.