

SYLLABUS

IS409E_2_0101_26

Digital Tools for Project Management

ACADEMIC AREA :	OPERATIONS AND ANALYTICS
PROGRAMME :	PGE / UGTC LEVEL 4 PGE
PERIOD :	SPRING
COORDINATOR :	Mr. Alexis De Solliers Helcmanocki
INSTRUCTOR(S) :	
CONTACT HOURS :	15.0 hours
STUDY TIME :	null hours (Class preparation, homework and assessments)
CREDITS :	2.0 ECTS
AOL :	NO

PRE-REQUISITE MODULES :

NONE

MODULE DESCRIPTION :

The goal of this module is to learn how

- to build the right project set-up
- to steer projects in an agile mode
- to use and deploy the most pertinent tools for project management

We have today access to lots of digital tools, but we still see information getting lost in a lot of project teams, so what is the correct set up of digital tools for project teams and project management ?

How can we help collective intelligence to solve problems faster, and how can we monitor the correct actions and results of a project ?

During this module, we will cover the essential categories of project tools, and see example of SaaS digital tools to use, and for which particular purpose.

Also this module will prepare for a very differentiating badge for your future career : the SCRUM /AGILE Badge from PM coaching

CONTRIBUTION TO PROGRAMME LEARNING OBJECTIVES :

- Demonstrate advanced technological literacy to Connect physical and digital spaces #ConnectSpaces

MODULE INTENDED LEARNING OUTCOMES (ILOs) :

- 1 - Learn how to build the correct project set-up with digital tools
- 2 - Identify the main and critical categories of Digital Tools for a project
- 3 - Test the most common and simple SaaS project management tools
- 4 - Define the scope of digital tools and the scope of project manager skills
- 5 - Understand the correct support of IA in Project Management
- 6 - Successfully prepare for the the SCRUM /AGILE Badge from PM coaching

TOPICS COVERED :

An introduction to project management basics Agile teams and squads
 Internal communication tools for a project team Documents and repositories solutions Collaboration and collective Intelligence Task Management tools
 External communication and reporting tools
 Generative AI in project Management
 Sustainable data management and risks related to project data acceleration
 Project Management and Agile mode

RESEARCH-LED TEACHING :

Based on the findings by the Project Management Institute (PMI). (2021) : A Guide to the Project Management Body of Knowledge (PMBOK® Guide) (7th ed.). PMI.

CSR AND SUSTAINABLE DEVELOPMENT GOALS :

Sustainable data management and risks related to project data acceleration

CSR NB HOURS :

SUSTAINABLE DEVELOPMENT GOALS COVERED :

- 03 - Good health and well-being
- 04 - Quality education
- 05 - Gender equality
- 08 - Decent work and economic growth
- 09 - Industry, innovation and infrastructure
- 10 - Reduced inequalities
- 11 - Sustainable cities and communities
- 12 - Responsible consumption and production
- 13 - Climate action

TEACHING METHODS :

The pedagogy is a mix of short theoretical masterclass, personal wrap-up and best practices, quizzes and practical use cases. It aims at providing the right balance between the academic fundamentals and business experience.

The philosophy of this course, is to provide students with strategic and specific knowledge as well as practical and available-to-all practical experience. It includes a workshop to get familiar with common digital tools.

This module links up with in-company practice in 2 main ways : testimonies and business case.

Also preparation for the SCRUM /AGILE Badge from PM coaching

METHODS OF ASSESSMENT :

Continuous/Final	Group/Individual	Assessment	Weight	Duration	ILOs assessed
Final	Individual	Written in class	60%	3 Heures	1-7
Continuous	Individual	Participation or task completion	40%	3 Heures	1 to 6

Assessment 1 details:

Final exam will be constructed around PM/ SCRUM / AGILE certification test

Assessment 2 details:

In-class completion of sprints

ACADEMIC INTEGRITY :

BIBLIOGRAPHY :

Project Management Institute (PMI). (2021). A Guide to the Project Management Body of Knowledge (PMBOK® Guide) (7th ed.). PMI. The global standard for project management processes, tools, and techniques.

Kerzner, H. (2022). Project Management: A Systems Approach to Planning, Scheduling, and Controlling (13th ed.). Wiley. A comprehensive “bible” covering methodologies, tools, and case studies.

Meredith, J. R., & Mantel, S. J. (2017). Project Management: A Managerial Approach (9th ed.). Wiley. Focus on managerial decision-making and classic tools such as PERT/CPM and risk analysis.

Larson, E. W., & Gray, C. F. (2021). Project Management: The Managerial Process (8th ed.). McGraw-Hill. Balances technical tools with leadership and organizational aspects.

Turner, J. R. (2014). Handbook of Project-Based Management: Leading Strategic Change in Organizations (3rd ed.). McGraw-Hill. Strong link between project tools and organizational strategy.

Schwaber, K., & Sutherland, J. (2020). The Scrum Guide. Scrum.org. The official reference for Scrum, a leading agile framework.

Highsmith, J. (2010). Agile Project Management: Creating Innovative Products (2nd ed.). Addison-Wesley. Practical guide to agile tools like backlog, burn-down charts, sprints.

Anderson, D. J. (2016). Kanban: Successful Evolutionary Change for Your Technology Business. Blue Hole Press. A classic on Kanban and visual workflow management.

Leach, L. P. (2014). Critical Chain Project Management (2nd ed.). Artech House. [ebook <https://bit.ly/3lcDwuV>] Introduces the critical chain method based on the theory of constraints.

AXELOS. (2023). Managing Successful Projects with PRINCE2. AXELOS. Widely adopted methodology, especially in Europe, with a strong governance focus.

Additional Reading

MODULE PLAN SESSIONS :

Plan Session 01 :

- Agile project management : self organized and learning teams in a fast changing environment - The 5 fundamentals of Agile Project Management
- How to chose the correct set up for your project team

Plan Session 02 :

- Internal communication tools for a project team Documents and repositories solutions Collaboration and collective Intelligence - The importance of visual management tools
- First test at Google's PM certificate and its sprints

Plan Session 03 :

- Task Management tools
- External communication and reporting tools
- The importance of KPIs, reporting and feedbacks to leverage the value of a project - Sprint 1 of Google's PM certificate

Plan Session 04 :

- Introduction to Generative AI
- Define the correct set up of digital tools for your project team.
- Be able to tackle with different business issues, using the right tools.
- Sprint 2 of Google's PM certificate
- The risks and sustainable issues of data acceleration What is sustainable project management ?

Plan Session 05 :

- Final sprint of the Scrum / Agile certificate
- Final exam passed during class

