Valid from 2026.FS

Module description: Tools and Technology

Module Code	w.MA.XX.TAT-M8.22HS
ECTS Credits	3
Language of Instruction/Examination	German
Module Description	This module teaches the basics of how technical developments affect the field and roles in corporate financial management. To this end, the module first addresses fundamental digitalization technologies (e.g., generative AI, RPA, machine learning, data analytics). Students then learn about the effects of digital transformation and its technologies on the role, organization, and processes in accounting and controlling. The module covers both conceptual fundamentals and practical exercises as well as case studies.
Organizational Unit	Institut für Financial Management (IFI)
Module Coordinator	Ursina Hüppin
Deputy Module Coordinator	Gabriela Nagel
Program and Specialization	• Accounting and Controlling
Legal Framework	Academic Regulations MSc in Accounting and Controlling dated 10.12.2015, Appendix to the Academic Regulations for the degree program in Accounting and Controlling, first adopted on 26.01.2016
Module Category	**Module Type** Compulsory
Prerequisite Knowledge	
Contribution to Program Learning Objectives (by the concerned Module)	• Professional Competence • Methodological Competence • Social Competence • Self-Competence
Contribution to Program Learning Objectives	**Professional Competence** • Knowing and Understanding Content of Theoretical and Practical Relevance • Apply, Analyze, and Synthesize Content of Theoretical and Practical Relevance • Evaluate Content of Theoretical and Practical Relevance **Methodological Competence** • Problem-Solving & Critical Thinking • Scientific Methodology • Work Methods, Techniques, and Procedures • Information Literacy • Creativity & Innovation **Social Competence** • Written Communication • Oral Communication • Teamwork & Conflict Management • Intercultural Insight & Ability to Change Perspective **Self-Competence** • Self-Management & Self-Reflection • Ethical & Social Responsibility • Learning & Change

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Module Learning Objectives

Students...

- are able to classify the effects of digital transformation and the associated systemic support in accounting and controlling.
- have an overview of the various success factors of digital transformation in accounting and controlling.
- are familiar with the roles and responsibilities of their future work environment.
- learn how digital transformation is influencing accounting and controlling processes and how they will change in the future.
- understand modern (statistical) analysis methods and technologies that are increasingly being used in accounting and controlling, e.g., business intelligence, predictive analytics, machine learning, RPA, or artificial intelligence, and can apply selected methods independently.
- learn how to use automation solutions such as RPA or agentic automation and can apply selected solutions.
- can reiterate the knowledge they have learned in exercises and small group sessions, practice applying it, and discuss the issues covered.
- work together in groups in a focused manner.
- take different perspectives into account when evaluating solutions and problems.

Module Content

- Fundamentals of digitalization technologies (e.g., generative artificial intelligence, RPA, machine learning, data analytics, business intelligence) and their use cases
- Areas of action for digital transformation in accounting and controlling
- Digital transformation and roles in accounting and controlling
- Digital transformation and organization in accounting & controlling
- Digital transformation and processes in accounting & controlling
- Practical introduction to selected digitalization technologies (varying tools for AI, RPA, machine learning) in accounting and controlling
- Visualization, commentary, and storytelling in reporting
- Practical introduction to business intelligence as a digitalization technology for automating processes in accounting and controlling, using Power BI as an example
- Combining business intelligence and artificial intelligence in practice
- Case studies and practical transfer from real-world experience

Links to other modules

This module is linked to the following modules:

- w.MA.XX.PM-M12.16HS
- w.MA.XX.CO-M3.16HS
- w.MA.XX.CFFM-M7.17HS

Digital Learning Resources

- Reader
- Teaching Materials
- Practice and Application Exercises (with Key)

Methods of Instruction

- Exercises
- Application Tasks
- Case Studies
- Project Work
- Lecture

Social Settings Used:

- Group Work

Type of Instruction

	Classroom Instruction	Guided Self-Study	Autonomous Self-Study
Lecture	32 h	28 h	
Excercise	-	-	
Project Work	-	-	
Seminar	-	-	
Total	**32 h**	**28 h**	**30 h**

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Performance Assessment

End-of-module exam	Form	Length (min.)	Weighting
-			
Permitted Resources			

Others	Assessment	Format	Length (min.)	Weighting
Written Assignment	Grade	Gruppenarbeit	0	50.00
Talk/oral presentation	Grade	Gruppenarbeit	20	50.00

Classroom Attendance Requirement

None

Compulsory Reading

- Langmann, C. (2019). Digitalisierung im Controlling. Springer. ISBN 978-3-658-25016-4.
- Keimer, I. & Egle, U. (2020). Die Digitalisierung der Controlling-Funktion: Anwendungsbeispiele aus Theorie und Praxis. Springer. ISBN 978-3-658-29195-2.

Recommended Reading

- Additional online sources on business intelligence/AI will be available on Moodle prior to the start of the first class.
- Langmann, C. & Turi, D. (2021). Robotic Process Automation (RPA) - Digitalisierung und Automatisierung von Prozessen: Voraussetzungen, Funktionsweise und Implementierung am Beispiel des Controllings und Rechnungswesens. 2nd edition. Springer. ISBN 978-3-658-34679-9.
- Weber, J. & Schäffer, U. (2020). Einführung in das Controlling. 16th edition. Schäffer-Poeschl. ISBN 978-3-7910-4333-3.

Comments