llsmf2903 2022	Digital Business Systems

5.00 credits	22.5 h + 15.0 h	Q1

Teacher(s)	Belleflamme Paul ;Coenraets Jérôme ;Kolp Manuel ;
Language :	English
Place of the course	Louvain-la-Neuve
Prerequisites	None
Main themes	Digital technologies are deeply reshaping our society and economy. In particular, they are transforming the management of organizations in every aspect. Against this backdrop, the objective of this course is to provide students with a broad and solid grasp of the challenges and opportunities raised by datafication (the transformation of social action into data) and digitization (the conversion of information into a digital format). To do so, the module adopts a transversal approach, spanning several disciplines of management (among others, knowledge and information systems, marketing, corporate social responsibility, and strategy).
Learning outcomes	**At the end of this learning unit, the student is able to :** Upon completion of this course, learners will: • Be able to apprehend the standard methods for collecting and exploiting data; • Be exposed to methods for analyzing and interpreting the obtained results to support decision-making; • Have the means to evaluate the scope, risks, and opportunities of data analytics within an organization; • Identify the implications and ethics of the digital transformation for organizations and their stakeholders; Understand how datafication and digitization affect the working of the economy.
Evaluation methods	The final grade in this course will be based on marks in individual coursework, group coursework, and a final exam. • The individual coursework counts toward 10% of the final grade. It consists of a combination of activities that will be specified at the start of the course (for instance, online educational games, or quizzes). • The group coursework counts toward 45% of the final grade. The contents and guidelines will be specified at the start of the course. Groups will first present their work in progress in an interim report (5% of the final grade); they will then present their final work in a written report (30% of the final grade) and in an oral presentation (10% of the final grade). • The final exam counts toward 45% of the final grade. It is a closed-book exam, which combines essay questions and multiple-choice questions. The marks for the individual coursework are set once and for all (this part of the assessment cannot be retaken). However, students have the possibility to retake the final exam in August and, if the mark of the group coursework is below 10/20, to replace it with an individual coursework (to be handed in June or in August).
Teaching methods	Class time is devoted to lecturing, discussion, and invited talks. Students participate through news and case discussions, and independent reading of academic and business literature. In parallel, the course uses project-based learning, as students are asked to work in groups on a specific project. The objective of the project is to get students acquainted with the practical and managerial implications of the concepts taught in class.
Content	Digital technologies are deeply reshaping our society and economy. In particular, they are transforming the management of organizations in every aspect. Against this backdrop, the objective of this course is to provide students with a broad and solid grasp of the challenges and opportunities raised by datafication (the transformation of social action into data) and digitization (the conversion of information into a digital format). To do so, the module adopts a transversal approach, spanning several disciplines of management (among others, knowledge and information systems, marketing, corporate social responsibility, and strategy). As the scope of the course is very broad, the team of instructors will select a range of topics based on their background, interests and experience. Potential covered topics are (but not limited to): Data analytics, business intelligence, digital marketing, artificial intelligence, digital business models, IT project management processes, system analysis and design, societal issues (privacy, security, impacts on jobs, globalization, green computing, etc.).
Inline resources	All the information and teaching material relevant to the course will be posted on a dedicated Moodle website.

Bibliography	Potential references:
	• Belleflamme, P. and Peitz, M. (2021). *The Economics of Platforms: Concepts and Strategy.* Cambridge University Press.
	• Chaffey, D. and Ellis, F. (2019). *Digital Marketing. Strategy, Implementation and Practice* (7th Edition). Pearson.
	• Chiang, M. (2012). *Networked life.* Cambridge University Press.
	• Easley, D. and Kleinberg J. (2010). *Networks, Crowds, and Markets.* Cambridge University Press.
	• Laudon, K.C. and Laudon, J.P. (2020). *Management Information Systems: Managing the Digital Firm* (16th Edition). Pearson.
	• Leskovec, J., Rajaraman A. and Ullman J. (2020). *Mining of Massive Datasets* (3rd Edition). Cambridge University Press.
	• Russel, S. and Norvig P. (2022). *Artificial Intelligence, a Modern Approach* (4th Edition). Pearson.
	• Valacich, J., Schneider, C. Hashim, M., (2022) Information Systems Today: Managing the Digital World, (9th edition), Pearson
Faculty or entity in charge	CLSM

Potential references:

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• Laudon, K.C. and Laudon, J.P. (2020). *Management Information Systems: Managing the Digital Firm* (16th Edition). Pearson.

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] : Business Engineering	INGE2M	5		🔍
Master [120] : Business Engineering [CEMS Programme]	INGM2M	5		🔍