# Management Information Systems

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***COURSE AIMS AND INTENDED LEARNING OUTCOMES***

Digitalization is drastically enhancing the ability to capture and analyse information and automatize processes. This in turn is driving innovation. New technologies such as big data, artificial intelligence, blockchain, cloud computing and Internet of Things are changing the competitive landscape of most industries. To thrive, incumbents and new entrants alike must adapt both decision and operating processes. From a general management perspective, the course builds skills and competences required to understand digitalization and lead its adoption in an organization.

The course is divided into two main knowledge areas (Modules). The first focuses on Management Information Systems (MIS) fundamentals and technologies driving digital transformation. The second covers how companies can leverage on MIS across business areas.

At the end of the course, students will be able to:

* Identify and interpret multidisciplinary theoretical and conceptual foundations associated with digitalization and new technologies (including, big data, artificial intelligence, blockchain, cloud computing and Internet of Things) to understand the challenges faced by managers both in a local and global context, including ethical and sustainable considerations (Knowledge);
* Develop theoretical and conceptual knowledge of how leveraging on MISs drives digital business transformation in global and multicultural environments (Knowledge);
* Apply proven theoretical and conceptual knowledge on how to use management systems to leverage, implement and facilitate innovation and use of technologies as a competitive enabler in a fast-changing global and multicultural landscape (Practical skill);
* Develop critical decision making and sustainable problem-solving to analyse, evaluate and implement MIS and digital technologies in the business world (Transferable skills).

***COURSE CONTENT***

Module One – Fundamentals & Technologies Driving Digital Transformation

1. Introduction to MIS;
2. Technological Building Blocks – From Data to IT Architecture;
3. New & Emerging Technologies – Big Data, Artificial Intelligence, Blockchain, Cloud Computing and Internet of Things;
4. Cyber Security, Privacy & Ethical Considerations.

Module Two – Leveraging on MIS to Drive Digital Business Transformation

1. Strategy & Data Driven Innovation;
2. Using Decision Support Systems and Social Media for Marketing & CRM;
3. How Industry 4.0 Impacts Operations & Supply Chain Management;
4. Leveraging on Organization & Project Management to Drive Change.

***READING LIST***

Required readings

Students are asked to read a Harvard Business Publishing coursepack (<https://hbsp.harvard.edu/import/816689>) and the course slides, please refer to blackboard for further details.

***TEACHING METHOD***

In order to encourage active learning, a variety of teaching methods will be used throughout the course. This includes frontal teaching, class discussions, problem solving exercises and team work assignments (case study based). Selected guest speakers will also be invited to share their professional experiences.

Active participation is highly encouraged at all times. It is strongly reccomended that students read in advance all materials required for the weekly lectures.

***ASSESSMENT METHOD AND CRITERIA***

Students can choose between a multiple assessment route and a single assessment route.

*Multiple assessment route*

Students are evaluated through an interim written test (25% of the final grade), selected teamwork projects (25% of the final grade) and a final written exam (50% of the final grade). The interim written test includes 6 open questions; it is scheduled at the end of module 1 and it lasts around 30 minutes. The teamwork projects are aimed at practising how to analyse, evaluate and implement MIS and digital technologies in a real-world business context; projects are done partially in-class and partially out-of-class and include coaching from the lecturer. The final exam includes 4 open questions (50% of the grade of the final exam) and a case study (50% of the grade of the final exam); it is scheduled at the end of module 2 and it lasts around 130 minutes. For a PASS in the multiple assessment route, the following conditions must be met: (i) the written tests and the teamwork project are mandatory; (ii) each grade received in the written tests and in the teamowork project must greater than or equal to 18. Students who do not pass the multiple assessment route are evaluated according to the single assessment route. Even though attendance is not mandatory for a PASS in the multiple assessment route, it is strongly recommended. Please refer to Blackboard for additional details and mock questions.

*Single assessment route*

A single assessment route consists of a written test lasting one hours. It is composed by 4 open questions (50%) and 1 short business case (50%) on the whole program of the course. The exam lasts 150 minutes. Even though attendance is not mandatory for a PASS in the single assessment route, it is strongly recommended. Please refer to Blackboard for additional details and mock questions.

*Assessment criteria*

The student's preparation is evaluated according to grading scales which are published in Blackboard.

***NOTES AND PREREQUISITES***

*N. ECTS* – 8

*Enrollment requirements* – No prerequisites or preparatory courses required.

*Language of instruction* – English.

*Time* – I term; 7.5 hours per lecture week (7.5 x 8 weeks = 60 hours in total).

*Attendance* – Attendance is is strongly recommended.

*Associated courses* – Customer-based marketing; Brand Management; Performance measurement; Project management; Supply chain management

*International dimension* – International teaching materials are used throughout the course.

*Business connection* - The course makes extensive use of contemporary case studies and examples. Selected guest speakers will also be invited to share their professional experiences.

*Professional context* – Technology is all around us and is impacting business and society in multiple ways. The course provides frameworks, methodologies and real-life applications on how to leverage on MIS from a general management perspective

*Further information –* Additional information regarding the course schedule and delivery, learning assessment, expectation and policies, general announcements, and additional course materials will be posted on Blackboard.