# 0IELSX11 – Management Technologies

**Professor**: Richard OREN **Contact information**:
richard.oren@dauphine.psl.eu **Department:** International affairs
**Semester**: 1

**Course level**: L3 undergraduate
**Domain**: Electives
**Teaching language**: English
**Number of in-class hours**: 33
**Number of course sessions:** 10 + Exam
**ECTS**: 6

## Course description and objectives

This course was designed for students seeking to develop their understanding of how technology impacts business practices. It addresses the theoretical underpinnings and the technological constructs of traditional, contemporary, and future-oriented management processes. The relationship between the business process and its technical extensions will be explored in its various facets. Class sessions will address from a technological perspective the following aspects of company creation: the conception of business models, organizational design, management methodologies, and the structuring of business systems. Examined in historical perspective, management process will be correlated to various contextual economic, social, philosophical and technological environments. The redefined balance between humans and technology will also be studied. This course will finally investigate emerging management approaches, integrating recent advances in artificial intelligence and their potential contributions to company design and business performance.

The teaching aims to extend student insight and enhance their ability to correlate compartments of intelligence encapsulated in technology with broader concepts applied to practical business contexts. Deepening their understanding of the technological dimension of business organizations, the course will explore how software, hardware and broader systems can leverage performance and lead to entirely new competitive considerations. Business development potential and future-oriented prospective will conclude the study. Teaching is through thematic lectures, focused class discussions and simulated case study debates.

## Prerequisites

International students are expected to have an initial awareness of technology in the field of business, whether in the form of computerization and automation, or systems dependent management methods. They are to have preliminary insight about how technology intervenes within companies, in business operations and the creation of products and services. They will endeavor to actively develop their understanding of the role of technology in management practices and perspectives. They will participate in class debates and conduct independent research on a specific topic related to management technologies.

## Learning outcomes

Students will take the opportunity to explore how technologies and emerging artificial intelligence can bring significant change to company design and the organization of business processes. They will gain perspective on the incidence of technological change on business challenges and opportunities and will analyze their correlation to management practices. Students will also explore how technology has been modifying the business landscape and promotes innovative business-to-business and consumer models.

## Assignments and grading

Required case study preparation, class discussion participation and independent research.
Graded 50% for collaborative group presentations and 50% for the individual final exam.

**Class participation:** Active class participation – this is what makes classes lively and instructive. Come on time and prepared. Class participation is based on personal investment and quality of comments.
**Exam policy:** In the exam, students will not be allowed to bring any document (except if allowed by the lecturer). Unexcused absences from exams or failure to submit cases will result in zero grades in the calculation of numerical averages. Exams are collected at the end of examination periods.
The numerical grade distribution will dictate the final grade. The passing grade for this course is 10/20.

## Course structure

| Session | Topic |
|---|---|
| 1 | Presentation of course objectives and outline of learning requirements. Overview of the gradual emergence of intellectual property and patented technology in business activity. Exploration of concepts about technology, the integration of processes, and leveraging. |
| 2 | Pre-industrial technologies will be studied with their relevance to the history of technology and a renewed interest in their benefits within luxury segments and traditional productions. Evaluation of the cost-benefit relationship of technological advances and their alternatives. |
| 3 | Study of the relation between management processes and technologies. Examination of the progressive integration of artisanal business operations into business systems and management science. Prospective on the role of technology in business organizations. |
| 4 | Review of business systems as used in contemporary companies. Analysis of their conceptual orientations and the cost-benefit ratios of various degrees of technological intensification. Referencing of systems design and IT support for managerial processes. |
| 5 | Case study focused on business applications of new technologies. Discussion of situational assessments and consequent implications for technological implementation and business orientations. Debate on alternative options and technological empowerment. |
| 6 | Study of business methods and management practices respective to the presence of key technologies. Analysis of performance orientations and chosen means to achieve them. Evaluation of management prerogatives and respective roles of managers and systems. |
| 7 | Case study on technological change within a company pursuant to substantial modification of the competitive context. Discussion of the issues of redefining the business process thanks to new technologies and using technological change to develop new opportunities. |
| 8 | Examination of the role of computers and robotics in various fields of management and business operations. Study of technologies used to integrate companies to their markets. Evaluation of technologies in redefining functional management organization and controls. |

| | |
|---|---|
| 9 | Review of emerging technologies that call into question management paradigms. Roles of robots and managers within jointly staffed teams. Civilizational modification through technology and the integration of artificial and human intelligence. |
| 10 | Student presentations of independent research on management technologies topics. |
| 11 | **Final Exam** |

## Bibliography


**Process Innovation: Reengineering Work Through Information Technology.** Thomas H. Davenport - 1993 - Harvard Business School Press, p. 326.

**Business Process Change: A Manager's Guide to Improving, Redesigning, and Automating Processes.** Paul Harmon - 2003 - Morgan Kaufmann

**Process Mapping, Process Improvement and Process Management.** Dan Madison - 2005 - Paton Professional.

**Digital to the Core: Remastering Leadership for Your Industry, Your Enterprise, and Yourself.** Mark Raskino, Graham Waller - 2015 - Bibliomotion, Incorporated.

**Frontiers in Artificial Intelligence: Artificial Intelligence in Finance.** Open Research Platform www.frontiersin.org

**The Black Box Society: The Hidden Algorithms that Control Money and Information.** Frank Pasquale - 2015 – Harvard University Press.

**The Industries of the Future.** Alec Ross - 2017 - Simon & Schuster.


## Moodle

This course is on Moodle: **No**

## Academic integrity

Be aware of the rules in Université Paris Dauphine about plagiarism and cheating during exams. All work turned in for this course must be your own work, or that of your own group. Working as part of a group implies that you are an active participant and fully contributed to the output produced by that group.