

INFORMATION SYSTEMS

COURSE OUTLINE

1. Introduction

Until recently, the knowledge of Information Technology (IT) and its application in the enterprise had been confined to the IT Department. Not anymore. Today – in the Digital Age – successful business manager must not only know how to interpret a P&L statement and read a balance sheet but also understand “digital” and anticipate its impact on business.

The Digital Age is fueled by the drastic reduction in the cost of processing, storage, and communication, creating a high-density digital environment that has seen the world move from 100 million connected PCs to the current 6,8 billion mobile devices in just a few years. Technology today is both available and affordable. This creates a new phenomenon where individuals incorporate cutting-edge digital technologies in their personal lives before businesses get a chance to adopt and implement them. In a way, this leads to a new kind of digital divide - that between society and business. Customers and employees of the younger generation come with new expectations that companies are not prepared to meet.

To address this challenge, today’s business leaders must be able to think digital. Thinking digital does not equal thinking IT. Digital focuses much less on process automation, transactions, and efficiency, and much more on creating new value-added experiences and interactions with customers, employees, and business partners. Ultimately, it enables the firm to generate new revenue by finding unique ways to combine its physical and digital resources.

2. Objectives

This course aims to explore digital transformation of business from the standpoint of a general manager. It develops a set of concepts, frameworks, and tools to help students understand how organizations can foster digital capabilities and turn them into a competitive advantage.

3. Learning Outcomes

- Describe main modes of information technology use in organizations. Define principles of IT governance for each mode.

- Create a business case to help make IT investment decisions
- Apply principles for establishing alignment between business and IT strategy. Assess flexibility options that IT investments create for an organization.
- Distinguish among different types of cloud computing. Understand key decision criteria for adopting cloud computing solutions.
- Understand the changing role of the CIO and the IT function in an organization.
- Identify key principles of digital competition. Establish and apply principles of platform competition and the long tail.
- Define key business objectives for a mobile strategy. Identify main challenges and best practices for carrying out such a strategy at an established organization.
- Define key business objectives for a social strategy. Identify main challenges and best practices for carrying out such a strategy at an established organization.
- Define key business objectives for a big data strategy. Identify main challenges and best practices for carrying out such a strategy at an established organization.
- Discuss advantages and risks of leveraging crowdsourcing in business.
- Apply the digital density framework to establish a vision for digital transformation in different industries.

4. Competences

This course builds and reinforces the following competences:

- Students should possess and understand knowledge that provides the basis or opportunity for originality in the development and/or application of ideas, often in a research context.
- Students should know how to apply the knowledge acquired and their problem-solving capacity in new and little-known settings within broader (or multidisciplinary) contexts related to their area of study.
- Students should be able to integrate knowledge and deal with the complexity of making judgements based on information that is incomplete or limited, but includes considerations of the social and ethical responsibilities linked to the application of the students' knowledge and judgements.
- Students should have the learning skills that enable them to continue studying in a largely self-directed, independent manner.
- Receiving and transmitting ideas effectively using the appropriate channel in the right moment and providing specific details to back up their observations and conclusions (Communication).
- Displaying an entrepreneurial spirit and making the necessary changes with decisiveness and personal responsibility (Initiative).
- Identifying and effectively dealing with information that is relevant to the job (Information Management).
- Recognizing the dangers and taking advantage of the opportunities that impact the competitiveness and effectiveness of the business (Business Vision).

- Making appropriate decisions at the right time (Prudence).
- Applying a structured, sound process in the analysis of business situations and decision making that includes the following phases: diagnosis of the problem, selection of criteria, identification of alternatives, weighted analysis and selection of an alternative with its corresponding plan of action.
- Learning to manage control tools that help implement company strategy.
- Mastering tools based on information and communication technologies (ICTs) applied to finance, accounting, operations, sales and decision making in general.

5. Content and Methodology

The course is organized around three main interrelated areas:

- Digital drivers: at certain points in time, different technologies become enablers of significant change in society and business. In the past, technologies like office automation, decision support systems, e-commerce, and ERPs had played this role. Today, we focus on four digital drivers that underlie the change – cloud, social, mobile, and big data.
- Business impact: digital drivers bring about change at three levels: (1) they reshape market structure and rules of competition, (2) they transform organizations' business models and processes, and (3) they change individual work practices.
- Management capabilities: managers need to reinforce existing and foster new capabilities to be able to recognize the opportunities and threats of digital to manage them proactively and maximize business value.

The course employs a combination of case discussions and lectures. Since the content of the course deals with a rapidly changing environment, we encourage you to stay up-to-date by reading specialized business press as well as technology websites and blogs.

Office Hours: We will be happy to meet with you outside of the classroom to discuss any issues related to the course or projects you are currently working on. To schedule an appointment, please contact our assistant.

The course is not intended to train technology professionals, CIOs, or IT consultants. It is aimed at general business managers and requires no prior technical knowledge.

6. Evaluation

You will be asked to fulfill standard class attendance and participation requirements as well as to complete a final exam (more details on the exam will be provided in class). The grading breakdown is shown below:

- Class attendance and participation – 50%
- Final exam – 50%

Class Attendance: regular class attendance is mandatory. The case method relies on student participation and, therefore, you are expected to attend all class meetings, arrive prepared, and engage in a conversation with your peers and the instructor. We understand that there may be circumstances when it is impossible to avoid scheduling conflicts due to personal and job search-related circumstances. In these cases, it is your responsibility to provide Student Affairs with an advance notice.

Class Participation: our criteria for evaluating class participation are similar to those in other IESE courses. A few things that may be specific to this course include the following: First, because of the technical content of the course, we strongly encourage you to ask questions in class whenever you encounter a term or concept that you are not familiar with. Please also keep in mind that this is a short course and each of your in-class contributions or the lack thereof, will have a greater effect on the final grade than that of longer courses.