



Technology & It Sectors

Professor: Carles Martín, Jordi Bosch and Ramon Palacio

Course Type: Elective

Credits: 4 ECTS

Term: 2nd Term

Course Description

“Technology Sectors, IT sector” aims to give students a general idea about the Information Technology Sector and the related Information Society & knowledge Economy. It comprises technologies, trends in social behaviors and a prospective on future enterprises as well.

The Internet, the globalization and new basic technologies give us a new society with new ways to use these technologies, different behaviors to interconnect people, new formats of companies and new business opportunities.

We will study in this course all different aspects of this new society.

Objectives

The objective of the course is to introduce all concepts of the IT Sector, Information Society & knowledge Economy and highlight why we have arrived to this point on time, to analyze them, to be critic and objective and to learn tools to face new knowledge economy projects. .

Methodology

We will mix different resources:

Master Classes: the professor will introduce specific subjects of the Content Program

Open Discussions: after –or prior to- Master Classes students may discuss the subjects

Case Analysis. Cases of strategic plans and knowledge economy companies will be studied.

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The idea is to study all aspects of those examples and study the actions and scores KPI of different actions in different countries.

A practical case study of the implementation of Strategic plans in a real company. 4 companies will be chosen and the students will have to implement a Strategic Plan related with the Information Society.

Presentations: Every chapter will have assignments that must be presented by the students in class. At the end of the course the real strategic plan will be presented in class.

Evaluation criteria

The evaluation criteria have four main components:

Assignments. 40%

Attendance and participation in class 10%

Technological visits attendance 10%

Final examination 40%

Students are required to attend 80% of classes. Failing to do so without justified reason will imply a Zero grade in the participation/attendance evaluation item and may lead to suspension from the program

Students who fail the course during the regular evaluation are allowed ONE re-take of the evaluation, in the conditions specified above. If the course is again failed after the retake, the student will have to register again for the course the following year.

In case of a justified no-show to an exam, the student must inform the corresponding faculty member and the director(s) of the program so that they

study the possibility of rescheduling the exam (one possibility being during the "Retake" period). In the meantime, the student will get an "incomplete", which will be replaced by the actual grade after the final exam is taken. The "incomplete" will not be reflected on the student's Academic Transcript.

Plagiarism is to use another's work and to present it as one's own without acknowledging the sources in the correct way. All essays, reports or projects

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handed in by a student must be original work completed by the student. By enrolling at any UPF BSM Master of Science and signing the "Honor Code," students acknowledge that they understand the schools' policy on plagiarism and certify that all course assignments will be their own work, except where indicated by correct referencing. Failing to do so may result in automatic expulsion from the program."

Reading Materials/ Bibliography/Resources

There is not a specific book to follow all course. Bibliography will be a selection of references, different articles from Wikipedia, and the following books:

"Working Knowledge: how Organizations manage what they know", Tomas H. Davenport, Laurence Prusak.

The information Age: Economy, Society and Culture. Manuel Castells

La Galaxia Internet. Manuel Castells

ICT ECONOMY AND TRENDS

- ❑ Learning Information Resources. Basic Bibliography (on paper and electronic)
- ❑ **European Commission (EC)**: All the directives, and in general legislation in force produced by the EC is gathered in the portal on e-Communications. This portal also includes public consultations and external studies commissioned by the EC on different issues. <http://ec.europa.eu>
- ❑ **Organization for Economic Cooperation and Development (OECD)**: This is a very well known think tank on economic and policy issues where the governments from the most developed countries in the world participate. Good source for the more developed countries. www.oecd.org/
- ❑ **International Telecommunications Union (ITU)**: ITU is an agency of United Nations focused on telecommunications issues. Apart from their work in standardization of telecommunications protocols (ITU-T), and spectrum coordination in the world (ITU-R), ITU-D is focused on development and public policy and regulatory issues for ICTs. It is a good source for information about ICT sector issues and data for the less developed countries. www.itu.int
- ❑ **DigiWorld Institute (IDATE)**: Research and analysis of telecommunications, Internet, and media companies. Elaborated reports and studies about sector trends. www.idate.org

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Bio of Professor

Carles Martín Badell

qualified as a telecommunications engineer from the Polytechnic University of Catalonia (UPC-1980). He worked in Munich for one and half years in a hard disk drive company. He came back to Barcelona and he worked in the computer industry until 1984 when he set up the maintenance and installation service company MADE S.A. In 1988 he founded the engineering company E.M.C. S.L. Between 2000 and 2002 he was Secretary to the Information Society of the Department of Universities, Research and the Information Society of the Generalitat Government of Catalonia. His work involved drawing up policy in this area within the Government of Catalonia. Since October 2002 until March 2007 he was Secretary General of the IQUA Internet Quality Agency. He has taught Knowledge Economy at the engineering school of Pompeu Fabra University, Barcelona since 2002.

From 1995 to 1998 he participated in a European project, *REWARD*, within the *Language Engineering* programme and he also participated in two projects in the *Safer Internet* programme while working in IQUA from 2003 to 2007.

Now he is working for the Catalan Audiovisual Council as a technical advisor and also he is also the managing director of Tecnonews, a digital magazine which connects more than 15,000 ICT professionals.

He was president of telecommunications engineers of Catalonia from 1987 to 2011 and he is president of INEC, a federation of all engineering branches, since 2005.

Ramon Palacio Leon

Qualified as a telecommunications engineer from the Polytechnic University of Catalonia (UPC-1977) and graduate in Business Administration from the Universitat Pompeu Fabra (UPF – 1996).

He has held technical, commercial and management responsibilities in local and multinational companies, as Centrisa, Landata, Telefonica, Arthur Andersen and Alcatel. He has been director general of the Public Entity Red.es, the Spanish Agency for the development of the information society in Spain, and CEO of

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Teytel S.A. He has teaching experience at the private Arthur Andersen University, UPC and UPF, and has been city councilor in the Sant Cugat municipality.

He is currently director of the consulting firm Xponent Triple AQ, member of the Advice Council of Catalan Science & Techno Parcs, and professor at the UPF. He is co-author of several books on applied ethics and smart cities.

Jordi Bosch Garcia.

(1972) Degree in Telecommunication Engineering – Polytechnic University of Catalonia (1995) and master's degree "Prevention and Risk Management in the Community", Autonomous University of Barcelona, Research Foundation for Prevention and Safety. I began my professional career in the American multinational General Electric where I worked for eight years in different countries and departments, and where I became Chief Technology Officer of a P&L worldwide. In 2004 I joined the public sector, the Government of Catalonia, where I was Managing Director of the Telecommunications and Information Technology Center (public company that manages ICT Catalan government € 600M over budget) and later Secretary of State for Telecommunications and Information Society leading ICT public policies in Catalonia. Since 2011 I'm freelance supporting national and international projects related to ICT, games, fiber optics and electronic administration, among others. Since 2013 to 2016 I was also Director of Digital Area in MEDIAPRO – IMAGINA. During the last years I have combined my professional activity with teaching at UOC, FUPC, UAB, UPF and IDEC. Partner/Owner of 3 companies: BIC Consulting, Barcelona Export Group and M's Entertainment.