



COMILLAS

UNIVERSIDAD PONTIFICIA

ICAI

ICADE

CIHS

Syllabus
2024 - 2025

TECHNICAL SHEET OF THE SUBJECT

Data of the subject	
Subject name	Strategic Technology Management
Subject code	E000011597
Main program	Official Master's Degree in Business Administration - MBA
Involved programs	Máster Universitario en Administración de Empresas (MBA) [First year]
Level	Postgrado Oficial Master
Quarter	Semestral
Credits	2,0 ECTS
Type	Optativa
Coordinator	Álvaro Sanz Sieteiglesias (agsanz@icade.comillas.edu)
Schedule	upon request by email
Course overview	Knowledge and understanding of tools and methods of innovation and technology management in organisations, aiming at exploiting potential competitive advantages. Key determinants of technology strategies are analysed, particularly those involved in the organisational context. Strategies for exploiting and selling technology are also analysed.

Teacher Information

SPECIFIC DATA OF THE SUBJECT

Contextualization of the subject

Contribution to the professional profile of the degree

Technology and innovation need to be managed. The speed at which companies need to adapt and respond to constant changes has increased. Managers and executives of corporations and startups need to understand technological trends, how they may impact their company strategy and develop a course of action. Being better at this leads to better product development and ultimately a winning strategy.

In this course I will also condense my strategic learnings as a venture capitalist, founder and startup operator. The things I learned the hard way. The things I hope I had known. And how technology can reshape a sector and produce huge winners and make other companies irrelevant.

Course objectives:

Provide students with frameworks to understand technological trends and cycles.

Understand how technology affects competitive strategy.

Have an understanding of some of the current technological trends and their potential.

Provide a set of tools for corporate and startup managers to engage in the marketplace.

Learn the basics of product development planning and execution.



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Prerequisites

None

Competencies - Objectives

Competences

GENERALES

CG01	Analytic and synthesis cognitive capacities applied to business situations and managing and organisation problems.	
	RA01	Describe, relaciona e interpreta situaciones y planteamientos de nivel elevado de complejidad.
	RA02	Selecciona los elementos más significativos y sus relaciones en las situaciones planteadas.
	RA03	Identifica las carencias de información y establece relaciones con elementos externos a la situación planteada.
CG02	Management of data and information as key elements for decision-making and for identification, formulation and resolution of business problems.	
	RA01	Busca, conoce, extrae y utiliza adecuadamente datos primarios y secundarios procedentes de diversas fuentes.
	RA02	Discierne el valor y la utilidad de diferentes fuentes y tipos de información.
CG03	Problem-solving and decision-making skills at a strategic, tactic and operational level with regard to a business, considering the interrelationship between the different functional and business areas.	
	RA01	Reconoce las alternativas y las dificultades de decisión en casos reales.
	RA02	Realiza actividades y elabora trabajos en los que contempla distintas aproximaciones, las evalúa y propone soluciones.
	RA03	Muestra un equilibrio entre seguridad y riesgo cuando se le plantean opciones en casos complejos y asume la responsabilidad de esas opciones.
CG09	Knowledge, understanding and handling of tools for diagnosis of the competitive position of a company, and designing and executing the company's strategic plan.	
	RA01	Lee, sintetiza y comprende críticamente materiales bibliográficos de referencia, así como materiales que presentan resultados de investigaciones, memorias, textos de supervisión profesional, y otros materiales de carácter aplicado.
	RA02	Desarrolla habilidades necesarias para la investigación independiente.



THEMATIC BLOCKS AND CONTENTS

Contents - Thematic Blocks

Technological evolution and trends
Technology and competitive strategy
Why startups win
What can corporates do
Product development and execution

TEACHING METHODOLOGY

General methodological aspects of the subject

In-class Methodology: Activities

Lectures

- Instructors will promote debate during theoretical lectures.
- Students must come to lectures with all the pre-reading and pre-viewing done.
- Attendance and participation are essential requirements for the effectiveness of the lecturing sessions.

Presentations by industry professionals.

CG01, CG02, CG03

Non-Presential Methodology: Activities

Individual reading and viewing. Students will need to read and view required materials before attending each lecture.

Individual memos. Students will need to write 5 memos (1 page maximum each). These memos will all be related to each other and follow a storyline.

- Technology trend. Chosen by the student and validated by instructor.
- Industry this trend affects and could reshape and why.
- Startup related to this trend and why it could win in the marketplace.
- Corporate (listed company or sufficiently mature) that is affected by this trend and how it can defend.
- Product that could be developed (by the corporate or by a new company) to capture the opportunities in the technology space.

Tutorials

Students will have a chance to meet with the course instructor individually and outside the class if required.

CG01, CG02, CG03, CG09

SUMMARY STUDENT WORKING HOURS

CLASSROOM HOURS



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Lectures of an expository nature	Analysis and resolution of cases and exercises, individually or collectively
15.00	5.00
NON-PRESENTIAL HOURS	
Study and documentation	Monographic and research work, individual or group work
15.00	15.00
ECTS CREDITS: 2,0 (50,00 hours)	

EVALUATION AND CRITERIA

Evaluation activities	Evaluation criteria	Weight
Final Exam	Knowledge of the subject. To pass the subject, students must obtain a 5/10 in the exam.	40
3 Memos (10% per Memo)	Knowledge of the subject. Clarity of thinking in exposing topic succinctly (max. 2 pages per memo) Supporting choices and arguments with clear reasoning and data. Ability to relate each memo to the others.	30
Attendance and participation	Active participation in the class. Students can present technology trend news, startup news or corporate moves to the class to enrich discussions.	20
Short presentation (5-7 minutes) on a technology trend, product or company and why it matters	Ability to support why the chosen trend, product or company matters. Ability to support why and how it could impact the market. Clarity and simplicity in the exposition of the arguments.	10

Ratings

Resits: if the overall grade is under 5/10, students can resit the exam or memos under that grade.



Students with an attendance waiver: the rest of the activities will proportionally amount to 100% of the grade.

BIBLIOGRAPHY AND RESOURCES

Basic Bibliography

Perez, Carlota. 2014. Technological revolutions and financial capital: the dynamics of bubbles and golden ages. Cheltenham [England]: Edward Elgar.

Christensen, Clayton M. 1997. The innovator's dilemma: when new technologies cause great firms to fail. Boston, Mass: Harvard Business School Press.

Cagan, Marty. 2018. Inspired: how to create tech products customers love. Hoboken, New Jersey : John Wiley & Sons, Inc.

Complementary Bibliography

Burgelman, Robert A., Clayton M. Christensen, and Steven C. Wheelwright. 2009. Strategic management of technology and innovation. Boston: McGraw-Hill Irwin.

Geoffrey Moore. 2014. Crossing The Chasm. Harper Collins.