



# Guia docent

## 230640 - START - Creació d'Empreses Start-Up: Teoria i Estratègia

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**Unitat responsable:** Escola Tècnica Superior d'Enginyeria de Telecomunicació de Barcelona

**Unitat que imparteix:** 739 - TSC - Departament de Teoria del Senyal i Comunicacions.

**Titulació:** MÀSTER UNIVERSITARI EN ENGINYERIA DE TELECOMUNICACIÓ (Pla 2013). (Assignatura optativa).

**Curs:** 2015

**Crèdits ECTS:** 2.5

**Idiomes:**

### PROFESSORAT

**Professorat responsable:** Romeu Robert, Jordi

**Altres:** Romeu Robert, Jordi; Ros Giral, Jordi

### METODOLOGIES DOCENTS

Course evaluation will be based on (1) home assignments, (2) class attendance and/or (3) final project. Home assignments will be mainly based on the discussion of technical papers, including Harvard Business Cases and other sources related to the subject of start-up venture initiation, with special emphasis on (1) theories and (2) strategies.

### OBJECTIUS D'APRENTATGE DE L'ASSIGNATURA

Since the founding of the first venture in Silicon Valley (HP, 1939), the start-up model has become a way of living for many engineers residing in highly technological areas such as Silicon Valley (California) or Route 128 (Massachusetts). This model challenged the conventional wisdom (Schumpeter, 1942) which argued that innovation was best produced by large multinational companies. The exponential growth experienced by some start-ups (Apple, Cisco, Google, HP, SUN, Microsoft, etc) indicates that small companies are indeed one of the most important engines of growth and innovation. The realization of this new phenomenon has led many scholars and renowned entrepreneurs to study the problem of start-up initiation. The objective of this class is to expose the student to this new set of theories and strategies while showing that the start-up model can be a very viable, rewarding and lucrative way of living for students after they graduate. Lectures will touch on macro areas such as growth theory (Solow model, economics of ideas) and on micro areas (start-up process, business plan, venture capitals, exit strategies, financial topics, start-up culture, management).

### HORES TOTALS DE DEDICACIÓ DE L'ESTUDIANT

Tipus	Hores	Percentatge
Hores grup gran	26,0	41.60
Hores aprenentatge autònom	36,5	58.40

**Dedicació total:** 62.5 h

### CONTINGUTS

**1. Introduction.**

**2. Innovation and Growth. Growth theory and the societal importance of innovation, the Solow model of economic growth, the large versus small firms debate (Schumpeter).**



**3. Venture building. The start-up process from idea generation to exit strategy, the (Silicon Valley) start-up culture, managing start-ups.**

**4. Business plan. BP as a (1) simulator of your venture, (2) strategic tool, (3) fundraising tool. BP framework. BP structure.**

**5. Economics of ideas. The macroeconomics of ideas, role of economic agents (entrepreneurs and government), the intellectual property system (copyrights, trademarks, patents and trade secrets), breakthrough versus incremental process, the Lead User Method (LUM).**

**6. Fundraising strategies. Sources of capital raising, comparative analysis and strategies to fundraise your venture.**

**7. Venture capitals. Debt and equity, VC definition, history of VCs, VC evaluation and monitoring, sources of VC funding, VC structure, the risk/reward trade-off, what VCs look for.**

**8. Garage stories. Steve Jobs and Apple, Google, Bill Joy and SUN Microsystems, Hewlett and Packard.**

**9. Financial topics. Finance structure, cash flow.**

**10. Exit strategies. Initial Public Offering (IPO) process, merge and acquisition (M&A), liquidation.**

## **SISTEMA DE QUALIFICACIÓ**

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Home assignments, class attendance and final project