

CS-490

**Business design for IT services**

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Cursus	Sem.	Type
Computer science	MA2	Opt.
Mineur STAS Chine	E	Opt.
SC master EPFL	MA2, MA4	Opt.

Language of teaching	English
Credits	3
Session	Summer
Semester	Spring
Exam	Oral
Workload	90h
Weeks	14
<b>Hours</b>	<b>3 weekly</b>
Courses	3 weekly
<b>Number of positions</b>	

**Summary**

We teach how to "design" an IT supported business initiative. We use insights from philosophy and psychology to concretely understand business models and analysis tools. Students work in groups on a project of their choice. Concrete fieldwork outside class and substantial readings are required.

**Content**

Individually, the students have to read the documents listed below. They make a synthesis of their contents. They need to apply the concepts presented in these documents on case studies and on their own project.

The students work, in groups, on a project. They:

- (1) imagine a new (IT) service to develop,
- (2) identify and analyze the relevant segments,
- (3) validate their model with real customers and potential partners,
- (4) define the qualitative and quantitative goals for the new (IT) service.

To represent their business idea, the students use Trade Your Mind - a web-based business modelling service,

**Keywords**

Business services, IT services, business design, innovation in startups, revolutionary ventures and corporate initiatives; entrepreneur profiles.

Business design, service design, house of quality, SEAM modeling (eco-system, supplier-adopter relationship, motivation models)

Segmentation, value networks, PESTLE analysis, 5 forces analysis, core competency, coopetition, blue ocean, resource based modeling, transaction cost.

Integrated marketing concept, SWOT analysis, strategy canvas.

New technology adoption, crossing-the chasm, decision making units.

Pricing strategy, cashflow management, break-event time

Psychological types, epistemology, ontology, axiology (ethics and aesthetics).

**Learning Outcomes**

By the end of the course, the student must be able to:

- Create a precise and detailed description for a new business design
- Analyze environmental as well as organizational factors in a business design
- Design a business model in details (ecosystem, value, finance)
- Assess / Evaluate alternative business and technical strategies

- Synthesize multiple marketing theories (from seminal publications)
- Represent the key concepts of a business design (ecosystem, value, finance)
- Interpret evidences
- Investigate innovative views of a business design

### Transversal skills

- Collect data.
- Access and evaluate appropriate sources of information.
- Write a scientific or technical report.
- Make an oral presentation.
- Summarize an article or a technical report.

### Teaching methods

Problem-based teaching + group work

### Resources

#### Bibliography

Bhide, A. (2000). *The Origin and Evolution of New businesses*: Oxford University Press.

Hauser, J. R., & Clausing, D. (1988). The house of Quality. *Harvard Business Review*.  
<https://hbr.org/1988/05/the-house-of-quality>

Golnam, A., Regev, G., Ramboz, J., Laprade, P., & Wegmann, A. (2011). Aligning Value and Implementation in Service Design - A Systemic Approach. *International Journal of Service Science, Management, Engineering, and Technology (IJSSMET)*, 3(1), 19-36.

Porter, M. E. (2008). The Five Competitive Forces That Shape Strategy. *Harvard Business Review*.  
<https://hbr.org/2008/01/the-five-competitive-forces-that-shape-strategy>

Levitt, T. (1960). Marketing Myopia. *Harvard Business Review*.  
<https://hbr.org/2004/07/marketing-myopia>

Prahalad, C., & Hamel, G. (1990). The Core Competence of the Corporation. *Harvard Business Review*.  
<https://hbr.org/1990/05/the-core-competence-of-the-corporation>

Brandenburger, A. M., & Nalebuff, B. J. (1995). The Right Game: Use Game Theory to Shape Strategy. *Harvard Business Review*.  
<https://hbr.org/1995/07/the-right-game-use-game-theory-to-shape-strategy>

Hagel, J., & Singer, M. (1999). Unbundling the Corporation. *Harvard Business Review*.  
<https://hbr.org/1999/03/unbundling-the-corporation>

Kim, W. C., & Mauborgne, R. (2004). Blue Ocean Strategy, *Harvard Business Review*.  
<https://hbr.org/2004/10/blue-ocean-strategy>

Tools: Trade Your Mind – Business modeling tool on the web  
[www.tradeyourmind.com](http://www.tradeyourmind.com)

Note: the list is non-exhaustive.

### Ressources en bibliothèque

- [A Framework for Modeling Value in Service-Oriented Business Models / Golnam](#)

- The origin and evolution of new businesses / Bhide
- The structure of "unstructured" decision processes / Mintzberg
- Value Map / Golnam
- A Modeling Framework for Analyzing the Viability of Service Systems / Golnam
- Unbundling the corporation / Hagel
- Blue Ocean Strategy / Kim
- Competitive advantage / Porter
- Marketing myopia / Levitt
- The core competence of the corporation / Prahalad
- Aligning Value and Implementation in Service Design / Golnam
- The house of quality / Hauser
- Coopetition within and between value networks / Golnam