

CS-490

Business design for IT services

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Cursus	Sem.	Type
Computer science	MA2, MA4	Opt.
Cybersecurity	MA2, MA4	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
Hours	3 weekly
Courses	3 weekly
Number of positions	

Summary

We teach how to "design" a business initiative. Students work in groups on a project of their choice. We develop insights with business and system thinking literature. Concrete fieldwork outside class and substantial readings are necessary.

Content

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

- (1) imagine a new business service offering to develop,
- (2) validate their model with real customers and potential partners,
- (3) analyze the relevant segments (competitors, regulators, etc)
- (4) define the service implementation, and especially the supporting IT services.
- (5) validate the financial model

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.

To represent and analyze their business idea, the students use TheSeamCanvas a web-based and paper-based business modelling tool. The course is based on the SEAM method.

This course requires a significant workload.

Keywords

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

Business design, service design, SEAM modeling (service models, supplier-adopter relationship, motivation models)

Segmentation, value networks, PESTLE analysis, 5 forces, core competency, coopetition, blue ocean, 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

Systems thinking, homeostasis, appreciative system.

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 (service, value, finance)
- Assess / Evaluate alternative business strategies
- Synthesize multiple marketing theories (from seminal publications)
- Represent the key concepts of a business design (ecosystem, value, finance)
- Interpret evidences collected through extensive interviews
- 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

Experiential learning + group work

Resources

Ressources en bibliothèque

- [Strategy Safari / Mintzberg](#)
- [Generic Strategies / Porter](#)
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