SUBJECT PROGRAM

I. IDENTIFICATION OF THE SUBJECT

Subject: **Organizations and Information Systems**		Acronym: **INF-270**	Approval date 10/11/2016 (CC.DD. Agreement 13/2016)		
UTFSM Credits : **3**	Prerequisites: **INF-260**	Exam: **Does not have**	Faculty		
SCT Credits : **5**			**Computer Science Department**		
Weekly Lecture Hours : **3**	Weekly Assistantship Hours: **0**	Weekly Laboratory Hours: **0**	Semester in which it is taught		
			Odd **X**	Pair	Both
Formative axis		: **Applied Engineering - IT Business Processes**			
Total time dedicated to the subject		: **155 chronological hours**			

Subject Description

The student understands the principles, procedures, techniques, and tools of computing, applying them to the contextualized management of organizations. The student critically evaluates the various information systems alternatives, considering their alignment to the context and strategic objectives of an organization.

Entry requirements

- Apply systemic thinking in the analysis of organizations.

Contribution to the graduation profile

Specific Competence
- Contribute to the formulation of global organizational strategies considering Information Technologies and people as relevant actors.

Transversal Competencies
- Communicate oral and written information effectively within the organizations in which one works, as well as with entities in the environment.
- Integrate work teams, applying knowledge about human, technical, economic and time management.
- Act with autonomy, flexibility, initiative, and critical thinking when facing professional problems.
- Develop their work with solid criteria that allow you to ensure quality from a systemic perspective.
- Manifest behaviors and attitudes of social responsibility and tolerance, valuing ethical principles.

Learning outcomes expected to be achieved in this subject

- **Evaluates** the role and impact of information systems in an organization, **applying** a socio-technical approach.
- **Applies** dynamic and structural domain modeling methods, **describing** the role of information systems in the organization.
- **Proposes** alternative technological solutions aligned with the organizational strategy, **considering** new trends in information systems.

Thematic contents

- Role and impact of information and information systems in organizations.
    - Strategic function of information systems in organizations.
    - Socio-technical approach to understand the role of information systems.
- Strategic and operational vision of information systems in organizations.

- Alignment of information systems with organizational objectives.
- Porter forces, value chain and its connection with information systems.
- Organizational structures, business processes and the role of information systems.
  - Organizational structure, generic functions, and business processes.
  - Information systems in the context of business processes.
- Methods for analyzing organizations and their information management.
  - Business process modeling (e.g. BPM).
  - History of conceptual modeling methods (e.g. *flowcharts,* DFD).
- Technological infrastructure for organizations.
  - History of enterprise applications, including CRM, SCM and ERP.
  - Participatory technologies, including SNS and *wikis.*
  - E-commerce, web presence and business intelligence.
  - Knowledge management.
- Selection, adoption, and use of information systems in an organizational context.
  - Ethical and social aspects of information systems.
  - Develop versus buy information systems.
  - Change management.

Teaching and learning methodology

- Expository classes and discussion of the subject.
- Descriptive case study.
- Problem-based learning.

Evaluation and grading of the subject (Adjusted to Institutional Regulations-Regulation No. 1)

Approval requirements and qualification	**Evaluation process**
	This subject is evaluated individually and in groups as detailed below:
	Individual evaluation (60%):
	• Exams: 2 tests (25% each).
	• Cases: 4 case analysis (average 10% of the best 3).
	Group evaluation (40%):
	• Development of a diagnosis of information management in an organization and information problems. Development of a proposal for alternative technological solutions that includes a functional prototype of the best option.
	• Delivery 1: 5%
	• Delivery 2: 10%
	• Peer review: 5%
	• Final delivery: 20%
	To pass, the student must have a weighted average of 55 or more, and a weighted group evaluation average of 50 or more.

Learning Resources

Virtual platform

Bibliography:

Guide Text	• Laudon, K. & Laudon, J. (2015). *Management Information Systems: Managing the Digital Firm* (14th ^{ed.}). Prentice Hall.
Complementary or Optional	• Wallace, P. (2012). *Information Systems in Organizations: People, Technology, and Processes.* Prentice-Hall. • Weske, M. (2012). *Business Process Management: Concepts, Languages, Architecture* (2nd ^{ed.}). SpringerVerlag Berlin Heidelberg.

CALCULATION OF NUMBER OF HOURS OF DEDICATION - (SCT-CHILE) - SUBJECT SUMMARY TABLE

ACTIVITY	Number of hours of dedication		
	Number of hours per week	Number of weeks	Total number of hours
PRESENCE			
Lecture or theoretical classes	3	fifteen	Four. Five
Assistantship/			
Industrial visits (from Field)			
Laboratories / Workshop			
Evaluations (exams)	2	2	4
Others ()			
NO PRESENCE			
Assistantship			
Mandatory tasks (Cases)	3	4	12
Personal Study	2	17	3. 4
Team work.	5	12	60
TOTAL (HOURS)			155
Total number of TRANSFERABLE CREDITS			5