SUBJECT PROGRAM

I. IDENTIFICATION OF THE SUBJECT

Subject: **IT Project Management**		Acronym: **INF-360**	Approval date 10/11/2016 (CC.DD. Agreement 13/2016)		
UTFSM Credits: **3**	Prerequisites: **INF-322 e INF-266**	Exam: **Does not have**	Faculty		
SCT Credits: **5**			**Department of Computer Science**		
Weekly Lecture Hours: **3**	Weekly Assistantship Hours: **0**	Weekly Laboratory Hours: **0**	Semester		
			Odd **X**	Pair	Both
Formative axis: **Applied Engineering - Computer Project Management**					
Total time dedicated to the subject: **156 chronological hours**					

Description of the Subject

Students working as a team analyzing processes, methods, techniques and tools suggested to formulate and manage IT projects in a context of bidding oriented to innovative entrepreneurship based on Information Technology (IT). The teams formulate a project that integrates the initiation and planning stages based on a real problem to give this project continuity throughout the semester**.**

Entry requirements

- Application requirements for analysis processes and prototype design of interactive systems.
- Application requirements for management skills associated with planning, organization, direction and control.

Contribution to the graduation profile

Specific Competence

- Formulate, develop, and manage IT projects aimed at innovation and entrepreneurship, demonstrating multidisciplinary teamwork skills.

Transversal Competencies

- Communicate oral and written information effectively within the organizations in which one works, as well as with entities in the environment.
- Integrate, coordinate and direct work teams, applying knowledge of human, technical, economic and time management.
- Act with autonomy, flexibility, initiative, and critical thinking when facing professional problems.
- Incorporate a dynamic of permanent updating of their skills, strengthening their innovative and entrepreneurial spirit.
- Develop their work based on solid facts which ensure the quality from a systemic perspective.
- Manifest behaviors and attitudes of social responsibility, tolerances and valuing ethical principles.

Learning outcomes expected to be achieved in this subject

- **Formulation of** a proposal for a computer science project in a competitive tender, **focusing** on innovation and business, as possible ventures.
- **Analyses of** the ethical and legal context of the project & **arguing** the scope of these areas in the project.
- **Application** of project management and development techniques, using international standards.
- **Preparation** of a project plan that includes requirements specifications & **consideration** of perspectives of stakeholders which estimates the size and effort.
- **Evaluation of** the IT project proposal, **considering** the technical specifications and the application context of the project.
- **Buildup** of an initial prototype, **considering** technical requirements for the proposal of a computer project.

Thematic contents

- Detection of business opportunities oriented to innovative entrepreneurship based on IT • Strategic vision associated with Innovation and Entrepreneurship in the Information and Communication Technology (ICT) environment.
  - *Design Thinking* Methodology.
  - Generation of a preliminary Business Model.
- Ethical-Legal Context of the computer project.
  - Ethical foundations in projects.
  - Key aspects of intellectual property.
  - Contracts in computer environments.
  - Tender for innovative entrepreneurship projects to participate in a Computer Fair.
- The life cycle of project management.
  - Agile methodologies and the PMBOK.
  - Start and Planning of the project.
  - Techniques and tools for project management.
- IT project planning.
  - Determination and Analysis of Requirements (includes management of Stakeholders expectation).
  - Plan the management of Scope, Time and Communications.
  - Project plan (includes elements of Quality and Risk management).

- Economic and/or financial evaluation of a computer project • Cost structure and sources of income of the project.
  - Cash flow: useful life, residual value, taxes and credits.
  - Project evaluation: pure and funded project.
- Note: The contents are not necessarily sequential, as they are associated with the project deliverables.

Teaching and learning methodology

- The subject is intensively based on project methodology, where students working in teams participate in an Innovative Entrepreneurship Licitation/Tender. They must plan and begin to develop a computer science project until they achieve an initial prototype, applying the conceptual aspects seen in classes and considering ethical aspects. legal and business.
- The subject consists of **5 Modules that are organized into Learning Units (UA).** In each of them, the professor **contextualizes** and **conceptualizes the themes, promoting Active Experimentation** in students through activities **associated with the different projects** they develop.

- The evaluations are weekly, to measure **achievements in learning situations** (with individual deliverables prior to the classroom and group activities in the room), and they are complemented with the stimulation of continuous r**eflective observation** of what has been learned.

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

Approval and qualification requirements.

It is evaluated using the following instruments:

Instruments	%
Individual Deliverables (EI)	10
Group Activities in the classroom (AG)	10
Licitation/Tender (L)	15
Project Plan (PP)	15
Economic Evaluation (EE)	15
Initial Prototype (IP)	25
Commitment and Compliance Assessment (CC)	10

The Final Grade is calculated based on the previous percentages, that is:
NF = 0.15 * (L + PP + EE) + 0.1 * (EI + AG) + 0.25 * PI + 0.1 * CC

Learning Resources

- Virtual platform.

Bibliography:

Guide Text	• PMBOK(R) Guide.A. (2013). Guide to the Project Management Body of Knowledge:, Project Management Institute; 5th ed.
Complementary or Optional	• Osterwalder A. and Yves P. (2013). Generation of Business Models., PAPF Book Center, Deusto. • Magazine articles, cases and videos.

II. CALCULATION OF NUMBER OF HOURS OF DEDICATION - (SCT-Chile) - SUMMARY TABLE OF THE SUBJECT

ACTIVITY	Number of hours of dedication		
	Number of hours per week	Number of weeks	Total number of hours
PRESENCE			
Lecture or theoretical classes	3	16	48
Assistantship/Exercises			
Industrial visits (from Field)			
Laboratories / Workshop			
Evaluations (exams, others)			
Others: Defense of the Idea	8	1	8
NO PRESENCE			
Assistantship			
Mandatory tasks (individual)	3	12	36
Project Teamwork: preparation of Deliverables and progress in Initial prototype	8	8	64
Others (specify)			
TOTAL (HOURS)			**156**
Total number of TRANSFERABLE CREDITS			**5**