SUBJECT TEACHING GUIDE

M1698 - Government of information technologies

Master's Degree in computing engineering

Academic year 2018-2019

1. IDENTIFYING DATA					
Degree	Master's Degree in computing engineering			Type and Year	Compulsory. Year 1
Faculty	Faculty of Sciences				
Discipline	ADMINISTRATION AND MANAGEMENT				
Course unit title and code	M1698 - Government of information technologies				
Number of ECTS credits allocated	3	Term		Semester based (1)	
Web	http://www.istr.unican.es/asignaturas/gobierno_de_las_ti/				
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. INGENIERÍA INFORMÁTICA Y ELECTRÓNICA
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3.1 LEARNING OUTCOMES
- To have a comprehensive view of the way IT are to be managed, including the issues, the challenges and the increasingly important role they have in the development of business strategies, operation, and management. All of this in the aim of improving the overall performance and profitability of an organization.
- To know the responsibilities and liabilities of IT management personnel.
- Capacity to plan, develop, execute and maintain effective strategies and policies for IT governance, mastering the related processes, techniques and tools.
- To know how to manage, evaluate, estimate, prioritize, finance, value, assign, and follow requests for IT services in a way coherent and aligned with the core organization business.
- To know how to assign IT resources to the activities with largest added value in business.
- To be able to improve the activities in an organization, its response capacity, its reliability, and the professional qualifications of its staff.
- To know the various management models that can be applied and the importance of setting up an IT architecture that is integrated and centralized, and that is based on standards and good practices codes.
- To know the main standards and good practices codes in the market and the pros and cons of implementing their proposals in an organization.

4. OBJECTIVES

To instill a comprehensive view of the way IT should be managed, including the issues, the challenges and the increasingly important role they have in the development of business strategies, operation, and management. All of this in the aim of improving the overall performance and profitability of an organization.
To present the responsibilities and liabilities of IT Management personnel.
To show how to plan, develop, execute and maintain effective strategies and policies for IT governance, mastering the related processes, techniques and tools.
To provide strategies to manage, evaluate, estimate, prioritize, finance, value, assign, and follow requests for IT services in a way coherent and aligned with the core organization business.
To discuss criteria to assign IT resources to the activities with largest added value in business.
To stimulate the search of strategies to improve the activities in an organization, its response capacity, its reliability, and the professional qualifications of its staff.
To propose management models that can be applied and highlight the importance of setting up an IT architecture that is integrated and centralized, and that is based on standards and good practices codes.
To present the main standards and good practices codes in the market and the pros and cons of implementing their proposals in an organization.

6. COURSE ORGANIZATION

	CONTENTS
1	Part 0 - Introduction to the subject
2	Part 1 – IT and the organizations: The fundamental equations of an organization. Organizational models of IT departments and the importance of IT.
3	Part 2 - IT governance: What is government? Government, governance and management. Mission and vision of the organizations. Strategies, plans, and projects. Governance and essential management essential tasks. Roles and responsibilities. Principles of corporative governance.
4	Part 3 – Standards and frameworks: the need of norms and standards. ISO 20000. ISO 38500. COBIT
5	Part 4 - Process of Implementing IT government. The implementation process. Tools. Cases analysis.
6	Practical assignments

7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
Written quiz involving all topics discussed.	Written exam	No	Yes	30,00
Presentation of proposals intended as solutions for the practical cases given as part of the final assignment of the subject.	Oral Exam	No	Yes	10,00
Practical assigments that compose the practical evaluation of the subject.	Work	No	Yes	60,00
TOTAL				100,00

Observations

The evaluation will be made along the teaching period of the subject.
The final grade is calculated as the weighted arithmetic average of all evaluations along the academic year, in the following way:
- 10% (O) Oral presentation of proposals intended as solutions for the practical case given as global practical evaluation of the subject
- 30% (T) Written quiz involving all topics discussed.
- 60% (A) Written assignments of the practical experiences of the subject.

In order to be able to pass the subject a student needs to get a score of 4.00 or more in the written quiz (T).
To recover the oral (O) and written (T) exams, the students may ask for an additional exam in June and September. This exam will evaluate the theoretical contents of the subject and will have in the final mark the weight of both, (O) and (T) exams (i.e. 40%).
The practical assignments (A) will be delivered along the course towards the end of each module in printed or digital form. In exceptional cases they may be delivered later, but not later than seven days before the end of June, the latest. If it is delivered in the recovery period they can be delivered up to seven days before the date fixed by the Faculty to upload the final marks. There is only one call per academic year. If the subject is not passed in the regular evaluation periods it can be recovered in September.
If the maximum number of “Matrículas de Honor” (outstanding marks) is fulfilled with those given in the regular evaluation period, students that sit for recovery exams in September cannot be eligible for any additional of those marks.

Observations for part-time students

The evaluation will be made along the teaching period of the subject. Part-time students have the opportunity to be evaluated in a similar way by sitting for the recovery examinations offered in June and September. Besides, the written assignments that comprise the practical evaluation of the subject can be delivered in a specific recovery period in September, which shall not be later than seven days before the date fixed by the Faculty to upload the final marks.

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

Waltzing with the Elephant: A comprehensive guide to directing and controlling information technology. Mark Toomey.
Infonomics Pty Ltd. 31 1, Ryans Rd Belgrave South Victoria 3160 Australia
www.infonomics.com.au

Estándar Internacional ISO/IEC 20000 - Service Management.
AENOR (http://www.aenor.es)

UNE-ISO/IEC 20000-1:2011
Tecnología de la información. Gestión del Servicio. Parte 1: Requisitos del Sistema de Gestión del Servicio (SGS).
CTN: AEN/CTN 71/SC 27 - TÉCNICAS DE SEGURIDAD

UNE-ISO/IEC 20000-2:2007
Tecnología de la información. Gestión del servicio. Parte 2: Código de buenas prácticas. (ISO/IEC 20000-2:2005)
CTN: AEN/CTN 71/SC 7 - INGENIERIA DE SOFTWARE Y SISTEMAS DE INFORMACION

UNE-ISO/IEC TR 20000-3:2011 IN
Tecnología de la información. Gestión del servicio. Parte 3: Directrices para la definición del alcance y aplicabilidad de la Norma ISO/IEC 20000-1:2005.
CTN: AEN/CTN 71/SC 7 - INGENIERIA DE SOFTWARE Y SISTEMAS DE INFORMACION

UNE-ISO/IEC 38500: Estándar internacional ISO/IEC 38500 - Gobierno de TI.
Gobernanza corporativa de la Tecnología de la Información (TI).
CTN: AEN/CTN 71/SC 7 - INGENIERIA DE SOFTWARE Y SISTEMAS DE INFORMACION
http://www.aenor.es/aenor/normas/buscadornormas/buscadornormas.asp

Cobit v5: Gobierno Corporativo de Tecnologías de Información
COBIT 5: Referencia; http://www.isaca.org/COBIT/Pages/COBIT-5-spanish.aspx
COBIT 5: Implementación: http://www.isaca.org/COBIT/Pages/COBIT-5-spanish.aspx