



LISBON  
SCHOOL OF  
ECONOMICS &  
MANAGEMENT

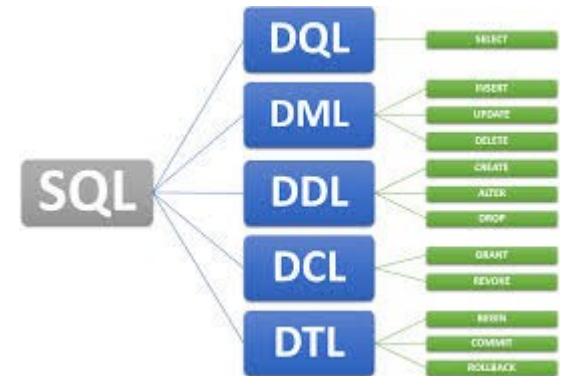
UNIVERSIDADE DE LISBOA

Academic Year 2019/2020

# **MANAGEMENT INFORMATION SYSTEMS**



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# MANAGEMENT INFORMATION SYSTEMS

# Presentation

- Professor
- Objectives
- Program
- Bibliography
- Evaluation rules

# Instructor



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Associate Professor

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<http://vizualize.me/CarlosJCosta>

# Learning Goals

1. Discussion of the main problems related to the use of ISs in organizations;
2. Main tools for planning, analysis and development of ISs;
3. Presentation of real cases for knowledge consolidation



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## **Syllabus**

- 1. Introduction to the course**
- 2. Information Systems Development**
- 3. Systems Requirements**
- 4. Fundamentals of Object Oriented Design**
- 5. Unified Modeling Language (UML)**
- 6. System Implementation**
- 7. Business Intelligence.**

# Assessment

- 50% Project part 1
- 25% test 1 (midterm test mainly UML)
- 25% test 2 (penultimate week PowerBI)
- During tests:
  - Students should also not retain or refer to any books or papers during any test except with the express permission of the instructor or teaching staff.
  - Personal belongings should be put away and all mobile phones and other electronic devices should be turned off.
- or
- Exame 1 (If student choose this option and has possibility of passing, will lose the previous marks from test1 and test2)
- Exame 2

# Planning

	Day	Month		Description
1	18	Fevereiro	1	Presentation of course, program and evaluation system of MIS and the rules for doing the project. Introduction to Systems Analysis
2	19	Fevereiro	2	Requirements Specification
3	26	Fevereiro	3	Uml: Use Case Diagrams Exercises <b>Delivered Statements</b>
4	3	Março	4	Uml: Description of scenarios/user stories with activity detail Exercises
5	4	Março	5	Uml: Description of scenarios/user stories with activity detail Exercises
6	10	Março	6	Uml: Object Oriented Classes and Methods Class Diagrams Exercises. Statemente Approval
7	11	Março	7	Invited lecture: IBM
8	17	Março	8	Uml: Class Diagrams Exercises. Appeal Statement
9	18	Março	9	Mapping UML Classes to relational + Normalization Exercises
10	24	Março	10	SQL
11	25	Março	11	SQL
	31	March		Midterm



# Planning

12	14	Abril	12	<b>Delivery 1st part team project</b> Business Intelligence Systems Theoretical Concepts - Big Data; Data Science; AI
13	15	Abril	13	Business Intelligence Systems Definition of KPIs Functional presentation of Power BI
14	21	Abril	14	Power BI
15	22	Abril	15	<b>Power BI</b>
16	28	Abril	16	<b>Power BI</b>
17	29	Abril	17	<b>Power BI: Dax</b>
18	5	Maio	18	<b>Power BI: Dax</b>
19	6	Maio	19	<b>Support to Project</b>
20	12	Maio	20	<b>Support to Project</b>
21	13	Maio	21	<b>Exercise Assessment</b> <b>Delivery of the 2nd part of the project</b>
22	19	Maio	22	<b>Project Discussion</b>
23	20	Maio	23	<b>Project Discussion</b>

# Deadlines

1. 26th of February: The Project statement available
2. 10th of March: Approval of the project
3. 25th of March: submission of UML (optional)
4. 31th of March: Midterm test
5. 14th of April: 1st submission (report with requirements and UML and MS Access)
6. 13th of May: 2st submission (Power-BI and report)
7. 13th of May: 2nd Test
8. 19th and 20th of May: Discussion

# Project deliveries

1. Each group shall deliver the following elements:
2. The report (pdf ou doc) and information about site sent by email to [cjcosta@iseg.ulisboa.pt](mailto:cjcosta@iseg.ulisboa.pt)
3. The report shall include:
  - Description of the problem
  - Description of the solution and its implmentation
  - Use case diagram, activity diagrams and class diagram (using MS-Visio, Objecteering, draw.io or Idea Modeler)
  - Identification of the main limitations of the solution proposed
  - Conclusion and references
4. Data base using MS Access
5. Defition of KPIs
6. The second submission will include PowerBI dashboards
7. Presentation is mandatory to all the members of the team
8. All the deliveries must be submitted through Aquila unti 23:59 of the deadline date

# Fraud in the evaluation process

1. In line with nr. 2 of RGAC (Evaluation Regulations) 2007-08:
2. All confirmed frauds in the evaluation process, such as copied written tests or other works, imply failure in the course and must be reported by the Director to the Admin Services.
3. The transgressor will not be allowed to the next three opportunities.
4. Any appeal will be decided by the President of Pedagogical Council along with the students' elected Vice-President.

# Bibliography

- Nunes, Mauro, O'Neill, Henrique, Fundamental de UML - 6ª Edição, ISBN: 972-722-481-4.  
(cota na biblioteca: QA76.76.N85 2004 )
- Silva, Alberto, Videira, Carlos (2005). UML Metodologias e Ferramentas CASE, 2ª Edição, Centro Atlântico, Publishing Ld, ISBN: 989-615-009-5. (cota na biblioteca: QA76.758.S55 2001)
- Damas, L (2017) SQL. Lisboa: FCA.
- Dennis, Wixom, Tegarden (2006). Systems Analysis and Design with UML Version 2.0: An Object-Oriented Approach, 2nd Edition, Wiley, ISBN: 978-0-471-65920-4. (cota na biblioteca: QA76.9.S88.D45 2005)
- Laudon, K. C. & Laudon, J. P. (2011) Management Information Systems Managing the digital firm, (12th edition). Prentice Hall.

# Questions

**Prof. Carlos J. Costa, PhD**  
**Rua Miguel Lupi, nº 20 – sala 318**  
**Tuesday - 17:00 - 19:00**

