Course Syllabus
Management Information System

August – December 2018

X Term
Professor:
Mariela Camargo R.

I. General features of the course

Course:	Management Information System	Code	: 10244
Prerequisite:	Strategic Planning / Business Process Engineering	Semester	: 2018-II
Credits	: 4	Cycle	: X
Hours	: 5 hours (2 theory / 3 practice)		

II. Course Summary

This course will enable students to implement integrated solutions within organizations making appropriate use of information systems. The content of the course is organized into five units: **1.** - Introduction and fundamentals concepts of MIS. **2. -** Enterprise Business Systems & E-Enterprise Systems. **3.** - Information Management, Database and Business Intelligence. **4.** – Planning and Development of Information Systems and Project MIS. **5. -** Organizations and computers networks & Trends in MIS.

III. Learning Goals

To implement of business information systems using the fundamentals of management information systems and aligning information systems with the objectives and processes of the organization.

IV. Learning Outcomes

Students who have successfully completed this course will be able to:

- Recognize the basic components of Management Information Systems (MIS) and the new role of the CIO (Chief Information Officer)
- Explain the influence of Information Systems (IS) on organizational goals and how the IS transforming business today.
- Recognize and explain the ethical and social issues related to systems
- Compare the uses of different business information systems
- Design a web page with its basic components
- Recognize how the information system can support the decision-making process
- Design an entity relationship model
- Examines a database through SQL statements
- Design a plan to develop a MIS
- Apply the basic knowledge to manage MIS projects with agile methodologies.
- Explain the interdependence and functionality of the hardware and software components of information systems
- Explain the new trends and digital transformation

V. Methodology

The classes are based on the active participation of students through research, preparation and presentation of applications. The professor assumes the role of guide, guide and animator of the learning process. Team work and classroom dynamics are also used to reinforce the learning process and to develop the skills necessary to successfully develop the participant.

Readings are indispensable. Before each class, the participants should read the recommended text, the subject to be treated so that he can formulate the questions that he thinks pertinent or be prepared for the reading controls as the case may be. In addition, after each class, you must complement the topic worked with the texts indicated in the supplementary bibliography.

VI. Evaluation System

The evaluation system is integral and permanent. The course grade is obtained by averaging the continuous assessment (40%), the midterm exam (30%) and final exam (30%).

The weights within the ongoing evaluation are described in the following table:

PERMANENT EVALUATION 40%		
Type of evaluation	**Description**	**Ponderation %**
Participation, assistance and punctuality **(PAP)**	Permanent evaluation (Individual / teamwork)	20
Monitoring and control **(M&C)**	Reading controls, cases or researches indicated in class **(8)** (the lowest grade is eliminated)	20
Assessments **(Test)**	Test **(4)** (the lowest grade is eliminated)	30
Final Work	Final assessments (Solution proposal: Implementation of a Management Information System)	30

The final score or grade calculates as follows:

$$\mathbf{G} = (0{,}30 \times ME) + (0{,}40 \times PE) + (0{,}30 \times FE)$$

G = Grade
ME = Midterm exam
PE = Permanent evaluation
FE = Final exam score

VII. Course Topics:

WEEK	CONTENT	ACTIVITIES / EVALUATION
LEARNING UNIT 1: Introduction and fundamentals concepts of MIS **LEARNING OUTCOME:** • Recognize the basic components of Management Information Systems (MIS) and the new role of the CIO (Chief Information Officer) • Explain the influence of Information Systems (IS) on organizational goals and how the IS transforming business today. • Recognize and explain the ethical and social issues related to systems		
1° *Aug. 20th - 25th*	**Fundamentals concepts of MIS** • Introduction to the course • Basics concepts of MIS/ Types of MIS • Dimension and components of IS • Benefits of MIS • Evolutions of MIS development • Contemporary approach of information systems • New role of the CIO	Participation and discussion in class
2° *Aug. 27th to Sep. 1th*	**Strategic Information System** • Fundamentals of strategic information systems • The forces of competitive strategies • Value chain and analyze the influence of IT on organizational goals. • The use of information systems to add value to the organization	Participation and discussion in class **M&C – 1: Reading control**
3° *Sep. 03th - 08th*	**Ethical and Social Issues in Information Systems** • Understanding ethical and social issues related to systems • Ethics in an information society • The moral dimensions of information systems	Participation and discussion in class **M&C – 2: Reading control** **Test 1**
LEARNING UNIT 2: Enterprise Business Systems & E-Enterprise Systems. **LEARNING OUTCOME:** • Compare the uses of different business information systems • Design a web page with its basic components		
4° *Sep. 10th – 15th*	**Enterprise Business Systems** • Basics concepts of EB systems • Enterprise Resource Planning (ERP System) • Customer Relations Management (CRM Systems) • Supply chain planning (SCP systems)	Participation and discussion in class **First part of Final Work**
5° *Sep. 17th – 22th*	**E-Enterprise Systems** • Organization of Business in an E-enterprise • E-enterprise Models • E-Enterprise Systems	Participation and discussion in class **M&C – 3: Reading control** **LAB1:** Web Design
6° *Sep. 24th – 29th*	**E-Commerce** • Features of e-commerce • e-commerce business and revenue models • m-commerce applications • Building an e-commerce web site	Participation and discussion in class **Test 2**

<table>
<tr><th>WEEK</th><th>CONTENT</th><th>ACTIVITIES / EVALUATION</th></tr>
<tr><td>7°

Oct. 01rd - 06th</td><td>Systems for collaboration & Social Business
• The importance of systems for collaboration and social business
• Technologies that are used for this purpose</td><td>Participation and discussion in class

M&C – 4: Reading control

Case Study</td></tr>
<tr><td>8°

Oct. 08th - 13th</td><td colspan="2">MIDTERM EXAM</td></tr>
<tr><td colspan="3">LEARNING UNIT 3: Information Management, Database and Business Intelligence.
LEARNING OUTCOME:
• Recognizes how the information systems can support the decision-making process
• Design an entity relationship model
• Examines a database through SQL statements</td></tr>
<tr><td>9°

Oct. 15th - 20th</td><td>Information Management, Database and Business Intelligence –BI (1)
• Basics concepts of BI and Big Data
• Database, Datamart & Datawarehouse
• Entity – Relationship (conceptual)</td><td>LAB2:
Entity - Relationship Model 1

M&C – 5: Modeling Second part of Final Work</td></tr>
<tr><td>10°

Oct. 22th - 27th</td><td>Information Management, Database and Business Intelligence –BI (2)
• Entity – Relationship (from conceptual to real)</td><td>LAB3:
Entity - Relationship Model 2
M&C – 6: Modeling Test 3</td></tr>
<tr><td>11°

Oct. 29th to Nov. 03th</td><td>Information Management, Database and Business Intelligence –BI (3)
• SQL Sentences
• Examples with Qlikview</td><td>LAB4: SQL Sentences

M&C – 7: SQL Sentences</td></tr>
<tr><td colspan="3">LEARNING UNIT 4: Planning and Development of Information Systems and Project MIS
LEARNING OUTCOME:
• Design a plan to develop a MIS
• Apply the basic knowledge to manage MIS projects with agile methodologies</td></tr>
<tr><td>12°

Nov. 05th - 10th</td><td>Planning and Development of Information Systems
• Steps in IT planning
• Systems development life cycle
• Challenges involved in systems development</td><td>Participation and discussion in class

Third part of final Work</td></tr>
<tr><td>13°

Nov. 12th - 17th</td><td>Fundamentals of project management information systems with agile methodologies
• Introduction of SCRUM
• User stories
• Challenges to implementation</td><td>Participation and discussion in class

Test 4</td></tr>
<tr><td colspan="3">LEARNING UNIT 5: Organizations and computers networks & Trends in MIS.
LEARNING OUTCOME:
• Explain the interdependence and functionality of the hardware and software components of information systems
• Explain the new trends and digital transformation</td></tr>
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WEEK	CONTENT	ACTIVITIES / EVALUATION
14° *Nov. 19th - 24th*	**Organizations and computers networks** & **Trends in MIS (I)** • Wireless technologies • Cloud Services • Internet of Things (IOT)	**M&C – 8: Research (presentations)**
15° *Nov. 26th to Dec. 01th*	**Organizations and computers networks** & **Trends in MIS (II)** • Machine to Machine • Virtual reality, Block Chain	**Final work – Presentation**
16° *Dec. 03th - 08th*	**FINAL EXAM**	

VIII. Bibliography

Mandatory References:

Laudon, K. C., Laudon, J. P. (2014). *Management Information Systems: Managing the Digital Firm, 13th Edition. Pearson* **[T58.6 L37i 2014]**

Laudon, K. C., & Laudon, J. P. (2018). *Management information systems: managing the digital firm*. *Fifteenth Edition*. Pearson.

Complementary References:

Stair, R., & Reynolds, G. (2015). *Fundamentals of information systems*. Cengage Learning.

Van der Heijden, H. (2009). Designing management information systems. GB: Oxford University Press

IX. Professor

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X. Laboratory Software

- Oracle Data Modeler / Visio
- SQL Server Management Studio
- Wix.com/Google site