



UNIVERSIDAD
esan

Course Syllabus Management Information System

March – July 2019

X Term

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I. General features of the course

Course:	Management Information System		
Prerequisite:	Strategic Planning / Business Process Engineering	Code	10244
Preceding	-	Semester	2019-1
Credits:	4	Cycle	X
Weekly hours	5 hours	Modality	Classroom course
Course type and College career	Mandatory: Industrial and Commercial Engineering	Coordinator	Joseph Ballon jballon@esan.edu.pe

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. - Databases and Business Intelligence. 4. – Strategic Information System Planning and Agile Project Management with Scrum. 5. - IT Trends.

III. Learning Goals

The objective of the course is to provide resources for students to implement information systems in different companies using the fundamentals of management information systems and aligning information systems with the objectives and processes of the organization.

IV. Learning Outcomes

At the end of the course the student:

- 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 Information System transforming business today.
- Recognize and explain the ethical and social issues related to the information systems and information system security.
- Describe the information technology infrastructure
- Understand the main activities of the software development process
- Understand how to achieve operational excellence and customer intimacy with Enterprise Applications
- Design a web page with its basic components
- Recognize how the information systems can support the decision-making process
- Design an entity relationship model
- Examine a database through SQL statements
- Understand how to make a Strategic Information System Plan

- Recognize that SCRUM is an agile framework for managing information systems projects
- Learn how to propose innovative IT solutions applying design thinking techniques
- Explain the new trends and digital transformation

V. Methodology

The classes are based on the active participation of students through research, preparation and topics presentation. The professor assumes the role of guide, facilitator and animator of the learning process. Teamwork 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 to understand better the topics and for the reading controls. In addition, after each class, you must complement the topics 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 permanent evaluation (50%), the midterm exam (25%) and final exam (25%).

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

PERMANENT EVALUATION (PE) 50%		
Type of evaluation	Description	Ponderation %
Participation, attendance and punctuality (PAP)	Individual assignment / teamwork/Kahoot/Labs/Attendance	10
Reading Control (RC)	Reading controls (6) (the lowest grade is eliminated)	20
Evaluations (Test)	Test (4) (the lowest grade is eliminated)	20
Final Work	Progress presentation (2) (group score) 20%	50
	Final report (group score) 30%	
	Oral Final Presentation (individual score) 50%	

The final score or grade calculates as follows:

$$G = (0,25 \times ME) + (0,50 \times PE) + (0,25 \times FE)$$

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

VII. Course Topics:

WEEK	CONTENT	ACTIVITIES / EVALUATION
<p>LEARNING UNIT 1: Introduction and fundamentals concepts of MIS</p> <p>LEARNING OUTCOME:</p> <ul style="list-style-type: none"> • 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 Information System transforming business today. • Recognize and explain the ethical and social issues related to the information systems and information system security. • Describe the information technology infrastructure • Understand the main activities of the software development process 		
<p>1° March 21st – 30th</p>	<p>1. Fundamentals concepts of MIS</p> <p>1.1. Basics concepts of MIS/ Types of MIS</p> <p>1.2. Dimension and components of IS</p> <p>1.3. Benefits of MIS</p> <p>1.4. Evolutions of MIS development</p> <p>1.5. New role of the CIO</p> <hr/> <p>Laudon, K. C., & Laudon, J. P. (2018). <i>Management information systems: managing the digital firm. Chapter 1 p.p. 30-59</i></p>	<ul style="list-style-type: none"> • Syllabus presentation • Guidance review (guidelines) for the tasks development • Review of the effective presentation guide • Forming Working Groups- Final Work • Opening Case: Rugby Football Union Tries Big Data
<p>2° April 1st – 06th</p>	<p>2. Strategic Information System</p> <p>2.1. Fundamentals of strategic IS</p> <p>2.2. The competitive forces strategies</p> <p>2.3. Value chain and analyze the influence of IT on organizational goals.</p> <p>2.4. The use of information systems to add value to the organization</p> <hr/> <p>Laudon, K. C., & Laudon, J. P. (2018). <i>Management information systems: managing the digital firm. Chapter 3 p.p. 106-140</i></p>	<p>RC1: April 01, 2019</p> <p>Case study: Tate & Lyle Devise a Global IT Strategy</p>
<p>3° April 8th – 13th</p>	<p>3. Ethical and Social Issues in Information Systems/ Securing IS</p> <p>3.1. Ethical, social, and political issues in the information era.</p> <p>3.2. Challenges of IS and the Internet to protect of individual privacy and intellectual property</p> <p>3.3. Information systems vulnerability</p> <p>3.4. Value of security and control in Business</p>	<p>RC2: April 08, 2019</p> <p>Case study: Facebook Privacy: What Privacy?</p>

	<p>3.5. The most important tools and technologies for safeguarding information resources</p> <p><i>Laudon, K. C., & Laudon, J. P. (2018). Management information systems: managing the digital firm. Chapter 4 p.p. 150-177, Chapter 8 p.p 320-338</i></p>	
WEEK	CONTENT	ACTIVITIES / EVALUATION
<p>4° April 15th - 20th</p> <p>Holiday: April 18th, 19th and 20th</p>	<p>4. IT Infrastructure and Emerging Technologies</p> <p>4.1. IT infrastructure, and IT infrastructure evolution</p> <p>4.2. The components of IT infrastructure</p> <p>4.3. Current trends in computer hardware platforms</p> <p>4.4. Challenges of managing IT infrastructure and management solutions</p> <p><i>Laudon, K. C., & Laudon, J. P. (2018). Management information systems: managing the digital firm. Chapter 5 p.p. 192-210</i></p>	<p>Case Study: Easy Jet Files High with Cloud Computing</p> <p>Test 1 April 17, 2019</p>
<p>5° April 22nd - 27th</p>	<p>5. Building Information Systems</p> <p>5.1. New systems produce organizational change</p> <p>5.2. Core activities in the systems development process</p> <p>5.3. Principal methodologies for modeling and designing systems</p> <p>5.4. Alternative methods for building information systems</p> <p>5.5. New approaches for system building in the digital firm era</p> <p><i>Laudon, K. C., & Laudon, J. P. (2018). Management information systems: managing the digital firm. Chapter 13 p.p. 514-536</i></p>	<p>RC3: April 22, 2019</p> <p>Case Study: Angostura builds a Mobile Sales System</p>
<p>LEARNING UNIT 2: Enterprise Business Systems & E-Enterprise Systems.</p> <p>LEARNING OUTCOME:</p> <ul style="list-style-type: none"> • Understand how to achieve operational excellence and customer intimacy with Enterprise Applications • Design a web page with its basic components 		

<p align="center">6° From April 29th to May 04th</p>	<p>6. Achieving Operational Excellence and Customer Intimacy: Enterprise Applications</p> <p>6.1. Enterprise Business Systems 6.2. Basics concepts of EB systems 6.3. Enterprise Resource Planning (ERP System) 6.4. Customer Relations Management (CRM Systems) 6.5. Supply chain planning (SCP systems)</p> <p><i>Laudon, K. C., & Laudon, J. P. (2018). Management information systems: managing the digital firm. Chapter 9 p.p. 364-377</i></p>	<p>RC4: April 29, 2019</p> <p>Case Study: Alimentation Couche-Tard Competes Using Enterprise Systems</p> <p>First progress Final Work</p>
<p align="center">7° May 06th -11th</p>	<p>7. E-Business and E-Commerce</p> <p>7.1. Features of e-commerce, digital markets, and digital goods 7.2. Principal e-commerce business and revenue models 7.3. Transformed marketing with e-commerce 7.4. Role of m-commerce in business, and the most important m-commerce applications 7.5. Building an e-commerce web site</p> <p><i>Laudon, K. C., & Laudon, J. P. (2018). Management information systems: managing the digital firm. Chapter 10 p.p. 398-423</i></p>	<p>Case Study: Uber Storms Europe: Europe Strikes Back</p> <p>LAB1: Web Design</p> <p>Test 2 May 8, 2019</p>
<p align="center">8° May 13th - 18th</p>	<p>Midterm exam</p>	
<p>LEARNING UNIT 3: Database and Business Intelligence. LEARNING OUTCOME:</p> <ul style="list-style-type: none"> • Recognize how the information systems can support the decision-making process • Design an entity relationship model • Examine a database through SQL statements 		
<p align="center">9° May 20th -25th</p>	<p>9. Foundations of Business Intelligence: Databases and Information Management (1)</p> <p>9.1. Basics concepts of BI and Big Data 9.2. Database, Datamart & Datawarehouse 9.3. Entity – Relationship (conceptual)</p> <p><i>Laudon, K. C., & Laudon, J. P. (2018). . Chapter 6 p.p. 238-255</i> <i>Coronel, C., & Morris, S. (2016). Chapter 4 p.p 105-138</i></p>	<p>Case Study: BAE System</p> <p>LAB2: ER-Model (Conceptual)</p>

<p>10°</p> <p>From May 27th to June 01st</p>	<p>10. ER-Modeling</p> <p>10.1. Entity – Relationship (from conceptual to real model)</p> <p>10.2. Entity-Relationship Diagrams</p> <p><i>Coronel, C., & Morris, S. (2016). Database systems: design, implementation, & management. Chapter 4 p.p 105-138</i></p>	<p>LAB3:</p> <p>ER-Model (Logical)</p> <p>RC5: May 27, 2019</p>
<p>11°</p> <p>July 03rd - 08th</p>	<p>11. Extracting Information with SQL (1)</p> <p>11.1. SQL Statements – Select, From, Where, Group By, Order, Aliases, Functions</p> <p>11.2. Working with one table</p> <p><i>Wilton, P., Colby, J., & Books24x7, I. (2005). Beginning SQL. Chapter 3. p.p. 53-115</i></p>	<p>LAB4: SQL Sentences</p> <p>Test 3</p> <p>June 5, 2019</p>
<p>12°</p> <p>June 10th - 15th</p>	<p>12. Extracting Information with SQL (2)</p> <p>12.1. SQL Statements, working with more than two tables.</p> <p><i>Wilton, P., Colby, J., & Books24x7, I. (2005). Beginning SQL. Chapter 3. p.p. 53-115</i></p>	<p>LAB5: SQL Sentences</p> <p>Second Progress-Final Work: June 12, 2019</p>
<p>LEARNING UNIT 4: Planning and Development of Information Systems and Project MIS</p> <p>LEARNING OUTCOME:</p> <ul style="list-style-type: none"> • Understand how to make a Strategic Information System Plan • Recognize that SCRUM is an agile framework for managing information systems projects • Learn how to propose innovative IT solutions applying design thinking techniques 		
<p>13°</p> <p>June 17th - 22nd</p>	<p>13. Planning and Development of Information Systems</p> <p>13.1. Steps in IT planning</p> <p>13.2. Systems development life cycle</p> <p>13.3. Challenges involved in systems development</p> <p>13.4. Propose innovative IT solutions (with design thinking techniques)</p> <p><i>Laudon, K. C., & Laudon, J. P. (2018). Management information systems: managing the digital firm. Chapter 14 p.p. 560-567</i></p>	<p>RC6: June 17, 2019</p> <p>Test 4</p> <p>June 19, 2018</p>
<p>14°</p> <p>June 24th - 29th</p>	<p>14. Fundamentals of project management information systems with agile methodologies</p> <p>14.1. Introduction of SCRUM</p> <p>14.2. Roles and meetings</p> <p>14.3. User stories</p> <p><i>Schiel, J. (2016). The ScrumMaster Study Guide. Chapter 12 Págs. 83-100</i></p>	<p>SCRUM dynamics</p> <p>IT Trends - Individual Assignment (Presentation)</p> <p>June 26, 2019</p>

LEARNING UNIT 5: Information Technologies and Digital Trends		
LEARNING OUTCOME:		
<ul style="list-style-type: none"> Explain the new trends and digital transformation 		
15° July 01st - 06th	15. IT Trends 16. Artificial Intelligence/Machine Learning 17. Machine to Machine/IOT 18. Block Chain	IT Trends - Individual Assignment (Presentation) July 01, 2019
	<i>Research work</i>	Final work Presentation July 01, 2019 and July 03, 2019
16° July 08th - 13th	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.
- Coronel, C., & Morris, S. (2016). Database systems: design, implementation, & management. Cengage Learning.

Complementary References:

- Olson, D. (2014; 2015;). Information systems project management (First;1; ed.). US: Business Expert Press.
- Schiel, J. (2016). The ScrumMaster Study Guide. Auerbach Publications.
- Stair, R., & Reynolds, G. (2015). Fundamentals of information systems. Cengage Learning.
- Van der Heijden, H. (2009). Designing management information systems. GB: Oxford University Press
- Wilton, P., Colby, J., & Books24x7, I. (2005). Beginning sql (1st ed.). US: Wrox.

IX. Laboratory Software

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

X. Professor

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