Course Syllabus
Intelligent Organizations and Knowledge Management

August – December 2021

X Semester

Professor

Fabiola Altamirano Samaniego

I. General Information

Course:	Intelligent Organizations and Knowledge Management		
Requirement:	Tecnologías de la Información para la Gestión del Capital Humano Evaluación y Gestión del Rendimiento	**Code:**	07023
Precedence:	-	**Semester:**	2021-2
Credits:	3	**Level:**	X
Horas per week:	3 hours	**Course modality:**	Online
Career(s)	Organizational Psychology	**Course coordinator:**	Varinia Bustos vbustos@esan.edu.pe

II. Summary

This course contemplates the analysis of the principles that promote an "intelligent organization", the five disciplines of Senge, evaluation and diagnosis of the organization with a view to the development of an intelligent organization and the use of technological tools. This course also analyzes the scenarios of training promotion or e-learning, the development of the necessary skills within organizations to identify and distribute good practices or critical information and use it among its members, as well as to assess and assimilate it, making use of information technologies, tutorials via e-mail, tutorials via video conference, computer-assisted instruction.

III. Course Objectives

Develop project initiatives in knowledge management aligned to business strategy and learn to measure them as intangible assets to support value creation in intelligent organizations with intellectual capital.

IV. Learning Results

By the end of the semester, the student will be able to:

- Recognize the differences between data, information, organizational knowledge, and intelligent organizations. Recognize the processes of knowledge management within learning organizations and in relation to their environment.

- Analyze the resources that affect the development of the Knowledge Management (KM) processes in an Intelligent Organization through Resource Based-View (RBV) to demonstrate the value creation.
- Propose a project that supports the development of knowledge management in an organization through an alignment tool and strategic control (intellectual capital and balance scorecard), to demonstrate the value creation as firm performance.

V. Methodology

Active participation is highly promoted and expected from the students. For this reason, students must review and analyze readings, updated articles, and study cases from UEVirtual. This review and analysis will allow students to develop Case Reports, Case Presentations, Reading Controls, and Practical Evaluations. Furthermore, the students must prepare a Final Report through research, collaborative work, and exposure of topics of interest to the course. The student will seek to increase their skills of analysis and synthesis, critical thinking, problem identification, and solution, always considering an ethical conduct.

To achieve the objectives, the class sessions will have a conceptual part as well as a practical one.

Class Participation: In addition to the assistance, the teacher will consider participation with relevant ideas.

Case Reports & Presentations: The course is oriented towards real cases. The development of the case report is groupwork. The case report should be based on the concepts of the session that correspond to source techniques and skills that will allow to do a critical analysis and, therefore, arrive to a solution to the case. The development of the document should be academic, technical, and efficient. The case report must be presented as a pictographic, for which the students will be able to use their creativity in order to give a professional and creative presentation as well as with their election of the tool to use. Every group will have the opportunity to present a case report with a maximum of ten minutes per group. All workgroups should solve assigned cases, be prepared to present their proposals, and answer questions that will be discussed in class to assess their ability for effectively communicating their ideas.

Reading Controls: These are evaluations based on readings assigned to the students beforehand.

Practical Evaluations: These are personal evaluations covering aspects of teacher presentations, class discussion, readings cases assigned in the class session. These evaluations will consider information from any of the sessions reviewed up to the moment of class.

Final Report: All groups should prepare a Final Report. This Report includes all topics of the course for an organization selected by the group. The minimum required structure will be:

1. Introduction to Organization (Vision, Mission, Principles and Values, Strategic Goals …)
2. Organizational Timeline
3. Recent Events in specific area (i.e. HR, IT, others)
4. External Factors: Macro and Micro Environments
       a. Macro-environment (Social, Economic, Political/Legal, Technological …)
       b. Micro-environment (Suppliers, Customers, Competitions, Substitutes …)

5. Internal Factors: Organizational Resources
       a. Organizational Structure
       b. Organizational processes
       c. People: Positions and Functions
       d. Organizational Culture
       e. Information Technology
       f. Organizational infrastructure
6. Map-Matrix Resources and Knowledge Management Processes
7. Project Proposal to Knowledge Management Processes
       a. Knowledge Generation
       b. Knowledge Coding and Coordination
       c. Knowledge Transfer
       d. Knowledge Use and Reuse
8. Intellectual Capital Report (including Strategic Map and BSC)
       a. People, Learning and Knowledge Focus
       b. Internal Operations Focus
       c. Customer Focus
       d. Financial Focus
9. Discussion and Conclusions
10. Bibliography.

VI. Evaluation

The evaluation system is integral and continuous. It involves the Permanent Average (60%), the Midterm Exam (20%) and Final Exam (20%).

Permanent Average includes these items:

PERMANENT AVERAGE - PA: 60%		
Type of evaluation	**Description**	**Weight (100%)**
Reading controls	3 reading controls during the semester.	15%
Study Cases – Reports & Presentation	5 Case Reports: presentation and class discussion	25%
Practical Evaluation	Practical Evaluations #1	15%
	Practical Evaluations #2	15%
Final Report	Previous Report (points 1, 2, 3, 4, 5) With class discussion and presentation	10%
	Last Report (points from 1 to 8)	15%
Class Participation	Active participation during the semester	5%

The Final Average (FA) corresponds to this equation:

$$FA = (0{,}20 \times ME) + (0{,}60 \times PA) + (0{,}20 \times FE)$$

Where:

FA = Final Average | ME = Midterm Exam | PA = Permanent Average | FE = Final Exam

VII. Content schedule

	LEARNING UNIT I	
LEARNING RESULTS: Recognize the differences between data, information, organizational knowledge and intelligent organizations. Recognize the processes of knowledge management within learning organizations and in relation to their environment.	
Week	*Contents*	*Activities / Evaluation*
1st August 23rd – 28th	**CONCEPTS OF KNOWLEDGE MANAGEMENT & INTELLIGENT ORGANIZATIONS** • Previous Concepts • Types of Knowledge and Intelligent Organizations • Knowledge categories in the company • The Knowledge Management Processes	**Class Introduction** **Syllabus Presentation** **1st PPT & Class Participation**
	Mandatory reading: Ancona, D., Malone, T. W., Orlikowski, W. J., & Senge, P. M. (2007). In praise of the incomplete leader. Harvard Business Review, 85(2), 92-100. Bornemann, M., et al., (2003). An Illustrated Guide to Knowledge Management. Sammer, Martin (Eds.), Wissenmanagement Forum, Graz, Austria.	
2nd August 30th – September 4th	**ORGANIZATIONAL KNOWLEDGE IDENTIFICATION** • Identification of Knowledge • Data, Information, and Knowledge • Knowledge and Management	**2nd PPT & Class Participation** **1st Case Report Presentation & Discussion** Porter M. (1993) **Hattori-Seiko**. Harvard Business School, Boston, MA. Case Number: 9-385-300.
	Mandatory reading: Nonaka, I., & Takeuchi, H. (1995). The knowledge-creating company: How Japanese companies create the dynamics of innovation. Oxford University Press. - Introduction to Knowledge in Organizations. Ch. 1. Davenport, T. H., & Prusak, L. (1998). Working knowledge: How organizations manage what they know. Harvard Business Press. - ¿What do we talk about when we talk about Knowledge? Ch. 1.	

3rd
 	
September 6th – 11th
	KNOWLEDGE GENERATION
	CONCEPTS, TECHNIQUES, MODELS – part 1
	
	• Creating Knowledge: Concepts and Techniques
	• Formation techniques applicable to the creation of knowledge
	• SECI Model
		1st Part - Final Report Presentations
		1. Introduction to Organization
		  a. Vision
		  b. Mission
		  c. Principles and Values
		  d. Strategic Goals
		2. Organizational Timeline
		3. Recent Events in Specific Area
		
		1st Reading control
		
		3rd PPT & Class Participation

	Mandatory reading: Nonaka, I. & Takeuchi, H. (1995). Op.cit. - Theory of Organizational Knowledge Creation. Chapter 3. Nonaka, I. (2007). The knowledge-creating company. Harvard Business Review, 85(7/8), 162-171.	

4th September 13th – 18th	**KNOWLEDGE GENERATION** CONCEPTS, TECHNIQUES, MODELS – part 2 **(Presencial Session)** • Types of Knowledge Generation • Knowledge and Innovation • How to motivate staff to create knowledge • How to maintain updated knowledge	**Mandatory reading:** Davenport, T. & Prusak, L. (1998). Op.cit. - Knowledge Generation. Ch. 3. Coyne, K. P., Clifford, P. G., & Dye, R. (2007). Breakthrough thinking from inside the box. Harvard Business Review, 85(12), 71-78.	**4th PPT & Class Participation** **2nd Case Report Presentation & Discussion** Davenport, T. (1997). **If only HP knew what HP knows…** Managing Organizational Knowledge. The Ernst & Young Center for Business Innovation. **1st Computer Lab:** Group System for Brainstorming

5th
 	
September 20th – 25th
	KNOWLEDGE CODING AND COORDINATION
	• Principles of Knowledge Codification
	• Codification Dimensions of Knowledge
	• Mapping Knowledge
		Mandatory reading:
		Davenport, T. & Prusak, L. (1998). Op.cit.
		- Knowledge Codification and Coordination. Ch. 4.
		
		Laudon, K. C. and Laudon, J. P. (2012). Management Information. Systems: Managing the Digital Firm. 12th Edition. Pearson.
		- Global e-Business and Collaboration. Ch. 2.
			2nd Part - Final Report Presentations
			1. Introduction to Organization
			2. Organizational Timeline
			3. Recent Events in Specific Area
			4. External Factors
			   a. Macro-environment
			   b. Micro-environment
			
			2nd Computer Lab:
			AtlasTI for Coding & Content Analysis
			
			2nd Reading control
			
			5th PPT & Class Participation

6th September 27th – October 2nd	**KNOWLEDGE TRANSFER, USE AND LEARNING ORGANIZATIONS** • Strategies, Frictions, and Solutions of Knowledge Transference • Transfer = Transmission + Absorption (& Use) • Learning Organizations	**Mandatory reading:** Davenport, T. & Prusak, L. (1998). Op. cit. - Knowledge Transfer. Ch. 5. Garvin, D. A., Edmondson, A. C., & Gino, F. (2008). Tool kit: Is yours a learning organization? Harvard Business Review. Reprint No. R0803H, 1-11.	**6th PPT & Class Participation** **3rd Case Report Presentation & Discussion** Marchand, Chung & Paddack (2003). **CEMEX**. International Institute for Management Development, Lausanne, Switzerland. Case N° IMD084.

LEARNING UNIT II **LEARNING RESULTS:** Analyze resources that affect the developing of KM processes in an Intelligent Organization through Resource Based-View to demonstrate the Value Creation.		

7th
 	
October 4th – 9th
	RESOURCES BASED-VIEW & KM IN INTELLIGENT ORGANIZATIONS
	• Resource Based-View and Knowledge Management
	• Knowledge-oriented Personnel
	• The Knowledge Management Workers
	
	Mandatory reading:
	Gimbert, X. (2009). El núcleo estratégico como modelo de gestión ante la complejidad. Harvard Deusto Business Review, pp. 37-48.
		3rd Part - Final Report Presentations
		1, 2, 3, 4,
		5. Organizational Resources
		   a. Organizational Structure
		   b. Organizational Processes
		   c. People
		   d. Organizational

	Gottschalk, P. (2005). Strategic KM Technology. IGP. - Resource-Based Strategy for KM. Ch. II pp.43-86	Culture e. Information Technology f. Organizational Infrastructure **7th PPT & Class Participation / Map Matrix** **1st Practical evaluation**
8th October 11th – 16th	**MIDTERM EXAM**	
9th October 18th – 23rd	**RBV: STRUCTURES AND PROCESSES** • The organizational structure types and operational innovation. • The process management standards.	**8th PPT & Class Participation** **4th Part – Final Report Presentations** 1, 2, 3, 4, 5 6. Map-Matrix Resources and KM Processes
	Mandatory reading: Davenport, T. (2005). La futura comercialización de los procesos. Harvard Deusto Business Review, pp. 23-30. Hammer, M. (2004). Cambio profundo. Cómo la innovación operacional puede transformar su empresa. Harvard Business Review América Latina, pp. 3-10.	
10th October 25th – 30th	**RBV: WORKERS AND CULTURE** • Knowledge workers • Organizational Culture as a Resource of Knowledge	**3rd Computer Lab:** UCInet & NetDraw for Network Analysis **9th PPT & Class Participation**
	Mandatory reading: Davenport, T. & Prusak, L. (1998). Op.cit. - Knowledge Roles and Skills. Chapter 6. Keyworth, T.R., Leidner, D.E. (2004). Organizational culture as knowledge resource. In: Holsapple, C. (Ed.) Handbook on knowledge management: knowledge matters (pp.235-252) (v.1). Berlín : Springer (International handbooks on IS) Robles, J.; Vilcapoma, E. & Matute, G. (2006). Identificación de Redes de Conocimiento mediante el Análisis de Redes Sociales. AMCIS 2006 Proceedings. Paper 516.	
11th November 2nd – 6th	**RBV: INFRASTRUCTURE AND TECHNOLOGY** • Collaborative Tools: Groupware • Case Based Reasoning	**10th PPT & Class Participation**
	Mandatory reading: Laudon, K. C. and Laudon, J. P. (2012). Op. cit. - Knowledge Management. Ch. 11. Davenport, T. & Prusak, L. (1998) Op. cit. - Technology for Knowledge Management. Ch. 7.	

		LEARNING UNIT III
		LEARNING RESULTS: Propose a project that supports the development of knowledge management in an organization (as IO) through an alignment tool and strategic control (intellectual capital and balanced scorecard), to demonstrate the value creation as firm performance.

12th November 8th – 13th	**INTELLECTUAL CAPITAL – PRINCIPLES** • Hidden Value • The New Balance • The Navigator	**11th PPT & Class Participation** **4th Case Report Presentation & Discussion** McAfee & De Royere (2006). **Los Grobo**. Harvard Business School, Boston, MA. Case N° 606-S30.
	Mandatory reading: Edvinsson, L., & Malone, M. S. (1997). Intellectual Capital: Realizing Your Company's True Value by Finding Its Hidden Brainpower. - Finding its Way. Ch. 3. - Navigating through a New World. Ch. 4.	
13th November 15th – 20th	**KM PROJECT MANAGEMENT FOR IO** • Knowledge Management Projects • From Organizational Strategy to Strategy Project • Projects, Innovation and Strategy Portfolio, Program, and Project	**4th Computer Lab:** MS Project (Youtube link) **12th PPT & Class Participation** **5th Case Report Presentation & Discussion** Bartlett & Mahmood (1998). **Skandia AFS**. Harvard Business School, Boston, MA. Case N° 9-396-412. **3rd Reading control**
	Mandatory reading: Davenport, T. & Prusak, L. (1998). Op. cit. - Knowledge Management Projects in Practice. Ch. 8. Gutiérrez, W.; Vargas, K.; Gracia, S.; Dzul, L. A. (2011). Proyectos, Innovación y Estrategia (PIE), Tecnología en Marcha, 24(4), 69-84. Bravo, B.; Dzul, L.; Gracia, S. y Fernandez, F. (2009). Coordinación entre los niveles de gestión de proyectos: Portafolio, programa y proyecto, Revista Dyna, 84 (5), 421-428.	
14th November 22nd – 27th	**INTELLECTUAL CAPITAL & BSC APPLICATION** THE INTANGIBLE ASSETS MEASUREMENT • The value of intangibles: Measuring IC • The Performance of Knowledge Management • Knowledge Management, Competency Management and Intellectual Capital	**4th Computer Lab:** SPSS to measure Intellectual Capital (Paper Explanation) **13th PPT & Class Participation** **5th Part – Final Report Presentations** 1, 2, 3, 4, 5, 6, 7. KM Project Proposal
	Mandatory reading: Edvinsson, L., & Malone, M. S. (1997). Op.cit. - All Together Now. Chapter 10. Kaplan, R. S., & Norton, D. P. (2004). Measuring the strategic readiness of intangible assets. Harvard Business Review, 82(2), 52-63. Salcedo, N. et al (2016). Testing of a Measurement Instrument on Intellectual Capital and Performance for Academic Sector in LatAm. ESAN University. 14p.	
15th November	**VALUE CREATION AS FIRM PERFORMANCE** • Recent research about Knowledge Management, Learning Organizations and Intellectual Capital, and their effects on firm performance.	**14th PPT & Class Participation** **6th Part – Final Report Presentation** 1, 2, 3, 4, 5, 6, 7, 8. Intellectual Capital Report (include Strategic Map and BSC) a. Learning and Knowledge
	Mandatory reading: Sharabati, A. A. A., Naji Jawad, S., & Bontis, N. (2010). Intellectual Capital and Business Performance in the	

29th – December 4th	pharmaceutical sector of Jordan. Management Decision, 48(1), 105-131. Wang, Wang, & Liang (2014). Knowledge sharing, intellectual capital and firm performance, Management Decision, 52(2), 230-258.	Focus b. Internal Operations Focus c. Customer Focus d. Financial Focus **2nd Practical evaluation**
16th December 6th – 11th	*FINAL EXAM*	

VIII. References

Basic Bibliography:

- Asrar-ul-Haq, M. Anwar, S. (2016). A systematic review of knowledge management and knowledge sharing: Trends, issues, and challenges. *Cogent. Business & Management*, 3, 1-17. Retrieved 03/14/2019, from: https://www.cogentoa.com/article/10.1080/23311975.2015.1127744
- Santoro, G. Vrontis, D. Thrassou, A. Dezi, L. (2016). The Internet of Things: Building a knowledge management system for open innovation and knowledge management capacity. *Science Direct*, 136, 347-354. Retrieved 03/14/2019, from: https://www.sciencedirect.com/science/article/pii/S0040162517302846
- Agrawal, A. Chowdhary, A. (2016). Perspective: Materials informatics and big data: Realization of the "fourth paradigm"of science in materials science. *APL Materials.* 1-11. Retrieved 03/14/2019, from: https://aip.scitation.org/doi/pdf/10.1063/1.4946894?class=pdf

Complementary Bibliography:

- Ancona, D., Malone, T. W., Orlikowski, W. J., Senge, P. M. (2007). In praise of the incomplete leader. Harvard Business Review, 85(2), 92-100.Choo, C. W. (2002). Information management for the intelligent organization: the art of scanning the environment. New Jersey: Information Today, Inc.
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- Kaplan, R. S., & Norton, D. P. (2004). *Measuring the strategic readiness of intangible assets.* Boston: Harvard Business Review, 82(2), 52-63.
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- Senge, P. (1990). *The fifth discipline: The art and science of the learning organization.* New York: Currency Doubleday.
- Sharabati, A. A. A., Naji Jawad, S., & Bontis, N. (2010). Intellectual Capital and Business Performance in the pharmaceutical sector of Jordan. *Management Decision*, 48(1), 105-131.
- Wang, Wang, & Liang (2014). Knowledge sharing, intellectual capital and firm performance, *Management Decision*, 52(2), 230-258.

IX.   Laboratory Requirement

Laboratory sessions will take place twice in the first half of the semester and twice in the second half, as follows:
- Week 4°: GroupSystem for Brainstorming
- Week 6°: Atlas TI for Coding and Content Analysis
- Week 10°: UCInet & NetDraw for Network Analysis
- Week 13°: MS-Project for Project Proposal
- Week 14°: SPSS to measure Intellectual Capital

X.   Professor

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