

# Course Syllabus Intelligent Organizations and Knowledge Management

August - December 2018

X Semester

Professor Fabiola Altamirano

#### I. General Information

Course : Intelligent Organizations and Knowledge Management Code: 07023

Requirement : Tecnologías de la Información para la Gestión del Capital Humano

Evaluación y Gestión del Rendimiento

Credits: 3 Semester: 2018 - 2

Professor : Fabiola Altamirano Level : X

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## **II. Summary**

The course allows participants to learn about the principles of Knowledge Management (KM) and the benefits to improve organizational processes. It starts from the premise that organizations and professionals develop knowledge through all the information that is generated. However, all this organizational knowledge is not being structured, nor disseminated or used strategically, and it is constantly redundant in its creation stage (Nonaka & Takeuchi, 1995). Thus, it is necessary to develop capabilities, competencies and skills that enable knowledge management through a vision based on strategic resources, to develop project initiatives, to align knowledge with business strategy, and learn how to measure intangible assets to support value creation in organizations (Davenport & Prusak, 1998). Likewise, Intelligent Organizations (IO) require creating a climate that encourages learning, designing information processes and systems that promote knowledge creation and use, and recognizing and managing intellectual assets (Choo, 2002). For these reasons, the Intelligent Organization derives from the Organizational Learning - OL (Argyris & Schoen, 1978; Duncan & Weiss, 1979; Miller, 1996) and of the Learning Organizations - LO (Senge, 1990).

Moreover, Knowledge Management and Learning Organizations are related concepts, developed and applied by organizations in the last two decades, including Intellectual Capital as a value creation measurement (Edvisson & Malone, 1996).

This course is designed to review the different components of knowledge and how to handle information technology. In other words we will review the concepts of Knowledge Management and Intelligent Organizations, its implications for business management, and how to implement these concepts in the organizations.

#### III. Course Goal

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**

- 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 processes in an intelligent organization through Resource Based-View (RBV) to demonstrate the generation of business value.

 Develop a knowledge management project supported with tools for strategic alignment, intellectual capital, and for strategic control, balanced scorecard, to demonstrate the value creation with firm performance.

# V. Methodology

The course will be in blended learning. The professor will promote active participation from students. For this reason, the students must review and analyze readings, updated articles, and study cases from UEVirtual. This review and analysis will allow to develop Case Reports, Case Presentations, and Quizzes. Furthermore, the students must do 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.

#### Virtual Methodology:

In non-presencial classes, students will complement the work using various tools provided by the virtual classroom (UEVirtual), such as forums, videos, questionnaires, etc. In the UEVirtual, students can interact with educational material, resulting this as the virtual space where the professor will solve the concerns and deepen the knowledge, in the same way collaborative work with other students will be encouraged.

To achieve the objectives, the class sessions will have two parts:

- Conceptual: Review the materials and presentations by the professor and students.
- **Practice:** Application and discussion of readings with reports, quizzes, and others.

**Class Participation:** In addition to the assistance, the teacher will consider participation with relevant ideas. The "virtual presence" is a lack of participation. There are class evaluations each day. Two cumulative delays is one absence.

Case Reports: 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, the solution of the case. The development of the document should be academic, technical, and efficient. The case report must contain *Introduction, Problem Definition, Analysis, Practical Contribution, Discussion and Conclusions*. Finally, it is required to include the *References* used in the APA style.

The reports submitted by each workgroup should be executive reports of five (5) pages (page format: A4; font: Times New Roman, 11 pt.). However, to clarify the analysis it can be complemented with *Annexes*. It should not consist of summaries or repeated information from the case. The format report should be in MS-Word.

Case Presentations: All groups have the opportunity to present a case report. The presentation takes the report structure and the format is in MS Power Point with a maximum extension of ten (10) minutes. All workgroups should resolve cases assigned, be prepared to present their proposals, and answer questions that will be discussed in class to assess their ability for effectively communicating their ideas.

**Surprise Quizzes:** These are personal surprise evaluations, at least four in the term during the course, covering aspects of teacher presentations, class discussion, cases or readings assigned in the class session. These quizzes will consider any information from any of the sessions reviewed up to that 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%)		
Class Participation	Active Participation during the semester.	15%		
Study Cases	5 Case Reports with 5 Case Presentations and class discussion / presentation	25%		
Quizzes	3 Quizzes – before Midterm Exam (The lowest will be eliminated)	15%		
	3 Quizzes– after Midterm Exam (The lowest will be eliminated)	15%		
Final Report	Previous Report (points 1, 2, 3, 4, 5) With class discussion / presentation	10%		
	Last Report (points from 1 to 8)	20%		

The Final Average (FA) makes of this way:

 $FA = (0.20 \times ME) + (0.60 \times PA) + (0.20 \times FE)$ 

Where:

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

#### **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.

learning organizations and in relation to their environment.		
Week	Contents	Activities / Evaluation
	CONCEPTS OF KNOWLEDGE MANAGEMENT & INTELLIGENT ORGANIZATIONS	Class Introduction
1 <sup>st</sup> August 20-25	<ul> <li>Previous Concepts</li> <li>Types of Knowledge and Intelligent Organizations</li> <li>Knowledge categories in the company</li> <li>The Knowledge Management Processes</li> </ul>	Syllabus Presentation  1st PPT & Class Participation
	Literature (via UEVirtual): 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	
	ORGANIZATIONAL KNOWLEDGE	2 <sup>nd</sup> PPT & Class
<b>2</b> <sup>nd</sup> August 27 – September 1	<ul> <li>IDENTIFICATION</li> <li>Identification of Knowledge</li> <li>Data, Information, and Knowledge</li> <li>Knowledge and Management</li> <li>Literature (via UEVirtual):         <ul> <li>Nonaka, I., &amp; Takeuchi, H. (1995). The knowledge-creating company: How Japanese companies create the dynamics of innovation. Oxford University Press.</li> <li>Introduction to Knowledge in Organizations. Ch. 1.</li> </ul> </li> <li>Davenport, T. H., &amp; Prusak, L. (1998). Working knowledge: How organizations manage what they know. Harvard Business Press.         <ul> <li>What do we talk about when we talk about Knowledge? Ch. 1.</li> </ul> </li> </ul>	Participation  1st Case Report & Presentation Porter M. (1993) Hattori- Seiko. Harvard Business School, Boston, MA. Case Number: 9-385-300.  - Class discussion
<b>3</b> <sup>rd</sup> September 3-	<ul> <li>KNOWLEDGE GENERATION         CONCEPTS, TECHNIQUES, MODELS – part 1</li> <li>Creating Knowledge: Concepts and Techniques</li> <li>Formation techniques applicable to the creation of knowledge</li> <li>SECI Model</li> <li>Literature (UEVirtual):         Nonaka, I. &amp; Takeuchi, H. (1995). Op.cit.         - Theory of Organizational Knowledge Creation. Chapter 3.</li> </ul>	1st Part - Final Report 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 Quiz  3rd PPT & Class
	Nonaka, I. (2007). The knowledge-creating company. Harvard Business Review, 85(7/8), 162-171.	Participation

	KNOWLEDGE GENERATION CONCEPTS, TECHNIQUES, MODELS – part 2	4 <sup>th</sup> PPT & Class Participation
	<ul><li>(Presencial Session)</li><li>Types of Knowledge Generation</li><li>Knowledge and Innovation</li></ul>	2 <sup>nd</sup> Case Report & Presentation
4 <sup>th</sup>	How to motivate staff to create knowledge     How to maintain updated knowledge	Davenport, T. (1997). If only HP knew what HP knows
September 10-15	Literature (UEVirtual): Davenport, T. & Prusak, L. (1998). Op.cit Knowledge Generation. Ch. 3.	Managing Organizational Knowledge. The Ernst & Young Center for Business Innovation.
	Coyne, K. P., Clifford, P. G., & Dye, R. (2007). Breakthrough thinking from inside the box. Harvard Business Review, 85(12), 71-78.	1 <sup>st</sup> Computer Lab: Group System for
	KNOWLEDGE CODING AND COORDINATION	Brainstorming  2 <sup>nd</sup> Part - Final Report
	<ul><li>Principles of Knowledge Codification</li><li>Codification Dimensions of Knowledge</li></ul>	Introduction to     Organization
	Mapping Knowledge	Organizational Timeline     Recent Events in
5 <sup>th</sup>	Literature (UEVirtual): Davenport, T. & Prusak, L. (1998). Op.cit Knowledge Codification and Coordination. Ch. 4.	Specific Area 4. External Factors a. Macro-environment
September 17-22	Laudon, K. C. and Laudon, J. P. (2012). Management Information. Systems: Managing the Digital Firm. 12th Edition. Pearson.	b. Micro-environment  2 <sup>nd</sup> Quiz
	- Global e-Business and Collaboration. Ch. 2.	5 <sup>th</sup> PPT & Class Participation
	KNOWLEDGE TRANSFER, USE AND LEARNING ORGANIZATIONS  • Strategies, Frictions, and Solutions of Knowledge	6 <sup>th</sup> PPT & Class Participation
	Transference	3 <sup>rd</sup> Case Report &
6 <sup>th</sup>	<ul><li>Transfer = Transmission + Absorption (&amp; Use)</li><li>Learning Organizations</li></ul>	Presentation Marchand, Chung & Paddack
September 24-29	Literature (UEVirtual): Davenport, T. & Prusak, L. (1998). Op. cit Knowledge Transfer. Ch. 5. Garvin, D. A., Edmondson, A. C., & Gino, F. (2008). Tool	(2003). <b>CEMEX</b> . International Institute for Management Development, Lausanne, Switzerland. Case N° IMD084.
	kit: Is yours a learning organization? Harvard Business Review. Reprint No. R0803H, 1-11.	<b>2<sup>nd</sup> Computer Lab:</b> AtlasTI for Coding &
	LEARNING UNIT II	Content Analysis
	<b>GRESULTS:</b> Analyze resources that affect the developin Organization through Resource Based-View to demonst	rate the Value Creation.
<b>7</b> <sup>th</sup>	RESOURCES BASED-VIEW & KM IN INTELLIGENT ORGANIZATIONS	<b>3<sup>rd</sup> Part - Final Report</b> 1, 2, 3, 4,
October 1-7	<ul> <li>Resource Based-View and Knowledge Management</li> </ul>	5. Organizational Resources
	<ul><li>Knowledge-oriented Personnel</li><li>The Knowledge Management Workers</li></ul>	a. Organizational Structure
	Literature (UEVirtual): Gimbert, X. (2009). El núcleo estratégico como modelo de gestión ante la complejidad. Harvard Deusto Business Review, pp. 37-48.	b. Organizational Processes c. People d. Organizational Culture
	Gottschalk, P. (2005). Strategic KM Technology. IGP Resource-Based Strategy for KM. Ch. II pp.43-86	e. Information Technology f. Organizational Infrastructure 3 <sup>rd</sup> Quiz

		7 <sup>th</sup> PPT & Class Participation	
8 <sup>th</sup> October 8-13	MIDTERM EXAM		
<b>9</b> <sup>th</sup> October 15- 20	<ul> <li>RBV: STRUCTURES AND PROCESSES</li> <li>The organizational structure types and operational innovation.</li> <li>The process management standards.</li> <li>Literature (UEVirtual):         <ul> <li>Davenport, T. (2005). La futura comercialización de los procesos. Harvard Deusto Business Review, pp. 23-30.</li> </ul> </li> <li>Hammer, M. (2004). Cambio profundo. Cómo la innovación operacional puede transformar su empresa. Harvard Business Review América Latina, pp. 3-10.</li> </ul>	8th PPT & Class Participation  4th Part – Final Report 1, 2, 3, 4, 5 6. Map-Matrix Resources and KM Processes  Previous Report Presentations	
<b>10</b> <sup>th</sup> October 22- 27	<ul> <li>RBV: WORKERS AND CULTURE</li> <li>Knowledge workers</li> <li>Organizational Culture as a Resource of Knowledge</li> <li>Literature (UEVirtual):     Davenport, T. &amp; Prusak, L. (1998). Op.cit.     - Knowledge Roles and Skills. Chapter 6.</li> <li>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)</li> <li>Robles, J.; Vilcapoma, E. &amp; Matute, G. (2006). Identificación de Redes de Conocimiento mediante el Análisis de Redes Sociales. AMCIS 2006 Proceedings. Paper 516.</li> </ul>	4 <sup>th</sup> Quiz  3 <sup>rd</sup> Computer Lab: UCInet & NetDraw for Network Analysis  9 <sup>th</sup> PPT & Class Participation	
11 <sup>th</sup> October 29- November 3	RBV: INFRASTRUCTURE AND TECHNOLOGY  Collaborative Tools: Groupware Case Based Reasoning  Literature (UEVirtual): 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.	10 <sup>th</sup> PPT & Class Participation  4 <sup>th</sup> Case Report & Presentation McAfee & De Royere (2006). Los Grobo. Harvard Business School, Boston, MA. Case N° 606-S30.	
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.			
<b>12<sup>th</sup></b> November 5- 10	<ul> <li>INTELLECTUAL CAPITAL – PRINCIPLES</li> <li>Hidden Value</li> <li>The New Balance</li> <li>The Navigator</li> </ul> Literature (UEVirtual):	5th Quiz  5th Case Report & Discussion Bartlett & Mahmood (1998). Skandia AFS. Harvard Business School, Boston, MA. Case N° 9-396-412.	

13 <sup>th</sup> November 12-17	<ul> <li>From Organizational Strategy to Strategy Project</li> <li>Projects, Innovation and Strategy Portfolio, Program, and Project</li> <li>Literature (UEVirtual):         <ul> <li>Davenport, T. &amp; Prusak, L. (1998). Op. cit.</li> <li>Knowledge Management Projects in Practice. Ch. 8.</li> <li>Gutiérrez, W.; Vargas, K.; Gracia, S.; Dzul, L. A. (2011).</li> <li>Proyectos, Innovación y Estrategia (PIE), Tecnología en Marcha, 24(4), 69-84.</li> <li>Bravo, B.; Dzul, L.; Gracia, S. y Fernandez, F. (2009).</li> <li>Coordinación entre los niveles de gestión de proyectos: Portafolio, programa y proyecto, Revista Dyna, 84 (5),</li> </ul> </li> </ul>	MS Project (Youtube link)  12th PPT & Class Participation  5th Part – Final Report 1, 2, 3, 4, 5, 6, 7. KM Project Proposal  Report Presentations
	421-428. INTELLECTUAL CAPITAL & BSC	6 <sup>th</sup> Quiz
14 <sup>th</sup>	<ul> <li>APPLICATION     THE INTANGIBLE ASSETS MEASUREMENT</li> <li>The value of intangibles: Measuring IC</li> <li>The Performance of Knowledge Management</li> <li>Knowledge Management, Competency Management and Intellectual Capital</li> <li>Literature (UEVirtual):</li> </ul>	4 <sup>th</sup> Computer Lab: SPSS to measure Intellectual Capital (Paper Explanation)
November 19-24	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.	Participation
45%	VALUE CREATION AS FIRM PERFORMANCE     Recent research about Knowledge Management,     Learning Organizations and Intellectual Capital,     and their effects on firm performance	14 <sup>th</sup> PPT & Class Participation  6 <sup>th</sup> Part – Final Report 1, 2, 3, 4, 5, 6, 7, 8. Intellectual Capital Report (include Strategic Map and BSC)
November 26-December 1	Literature (UEVirtual): 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.	a. Learning and Knowledge Focus b. Internal Operations Focus c. Customer Focus d. Financial Focus Final Report Presentations
16 <sup>th</sup> December 3-	FINAL EXAM	riesentations

## VIII. Bibliography

#### Books:

- Bornemann, M., et al., (2003). An Illustrated Guide to Knowledge Management. Sammer, Martin (Eds.), Wissenmanagement Forum, Graz, Austria
- Choo, C. W. (2002). Information management for the intelligent organization: the art of scanning the environment. Information Today, Inc.
- Davenport, T. H., & Prusak, L. (1998). Working knowledge: How organizations manage what they know. Harvard Business Press.
- Edvinsson, L., & Malone, M. S. (1997). Intellectual Capital: Realizing Your Company's True Value by Finding Its Hidden Brainpower.
- Gottschalk, P. (2005). Strategic Knowledge Management Technology. IGP.
- Holsapple, C. (2004) Handbook on knowledge management: knowledge matters (v.1). Berlín: Springer (International Handbooks on Information Systems).
- Laudon, K. C. and Laudon, J. P. (2012). Management Information. Systems: Managing the Digital Firm. 12th Edition. Pearson.
- Nonaka, I., & Takeuchi, H. (1995). The knowledge-creating company: How Japanese companies create the dynamics of innovation. Oxford University Press.
- Senge, P. (1990). The fifth discipline: The art and science of the learning organization.
   New York: Currency Doubleday.

#### **Magazine Articles:**

- 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.
- Bravo, B.; Dzul, L.; Gracia, S. y Fernandez, F. (2009). Coordinación entre los niveles de gestión de proyectos: Portafolio, programa y proyecto. Organización y dirección de empresas, Revista Dyna, 84 (5), 421-428.
- Coyne, K. P., Clifford, P. G., & Dye, R. (2007). Breakthrough thinking from inside the box. Harvard Business Review, 85(12), 71-78.
- Davenport, T. (2005). La futura comercialización de los procesos. Harvard Deusto Business Review, pp. 23-30.
- Garvin, D. A., Edmondson, A. C., & Gino, F. (2008). Tool kit: Is yours a learning organization? Harvard Business Review. Reprint No. R0803H, 1-11.
- Ghoshal, S., Bartlett, C. A., & Moran, P. (1999). A new manifesto for management.
   Sloan Management Review, 40(3), 9-20.
- Gimbert, X. (2009). El núcleo estratégico como modelo de gestión ante la complejidad. Harvard Deusto Business Review, pp. 37-48.
- Gutiérrez, W.; Vargas, K.; Gracia, S.; Dzul, L. A. (2011). Proyectos, Innovación y Estrategia (PIE). Un paso firme hacia nuevos modelos en la gestión empresarial. Tecnología en Marcha, 24(4), 69-84.
- Hammer, M. (2004). Cambio profundo. Cómo la innovación operacional puede transformar su empresa. Harvard Business Review América Latina, pp. 3-10.
- Hauschild, S., Licht, T., & Stein, W. (2001). Creating a knowledge culture. The McKinsey Quarterly, 74-81.
- Kaplan, R. S., & Norton, D. P. (2004). Measuring the strategic readiness of intangible assets. Harvard Business Review, 82(2), 52-63.
- Nonaka, I. (2007). The knowledge-creating company. Harvard Business Review, 85(7/8), 162-171.

#### **Research Papers:**

- 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.
- Robles, J.; Vilcapoma, E. & Matute, G. (2006). Identificación de Redes de Conocimiento mediante el Análisis de Redes Sociales. AMCIS 2006 Proceedings. Paper 516.
- Wang, Wang, & Liang (2014). Knowledge sharing, intellectual capital and firm performance, Management Decision, 52(2), 230-258.

# IX. Laboratory Requirement

The Laboratory is necessary twice in the beginning (before the Midterm Exam):

Week 4°: GroupSystem for Brainstorming (Presencial Class)

Week 6°: Atlas TI for Coding and Content Analysis (Presencial Class)

Week 10°: UCInet & NetDraw for Network Analysis (Presencial Class)

Week 13°: MS-Project for Project Proposal (Youtube Explanation)

Week 14°: SPSS to measure Intellectual Capital (Paper Explanation)

#### X. Professor

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Systems Engineer at University of Lima, MBA at Universidad Peruana de Ciencias Aplicadas (UPC), with a specialization program at Harvard Business School (Boston, EEUU) in Global branding, internet marketing, advanced strategic management, and international finance. Other specialization courses in Business Strategic Management, Project Management, Systems Engineering, among others.

Experience in commercial areas, marketing and operational excellence for service management. Latin America regional experience in product development and commercial project management in the financial and telecommunication industries.

Professorship since 2011 in courses: Digital Marketing, Strategical Marketing, Software Engineering, Risk cuantitative analysis, Risk Management, Information tools management, Systems Theory, Finance and Economic Engineering, among others.