Course Syllabus

Knowledge Management

March – July 2025

Term X

Professor

Rolando Gonzales

I. General Information

Course:	Knowledge Management		
Prerequisite:	Business Process Management	Code	01962
Preceding	-	Semester	2025-I
Credits:	3	Term	10th
Weekly hours	4 hours	Modality	Virtual
Course type and College career	**Mandatory:** Information Technology and Systems Engineering	Coordinator	Joseph Ballón jballon@esan.edu.pe

II. Summary

The course presents a review of social and economic trends that explain the origins of knowledge management as well as the revision and implementation of key measurement models of intellectual capital. It also seeks to work (in practice mode) with the technological tools used to concentrate and share knowledge within the company and to put such tools from a strategic perspective, understanding their advantages, limitations, and uses. The course requires that students develop a research project on the topic of knowledge management.

III. Course Goal

The objective of the course is to provide students with the skills to develop Knowledge Management (KM) project initiatives aligned with business strategy and learn to measure them as intangible assets to support value creation in smart organizations with intellectual capital.

IV. Learning Results

- Recognize the differences between data, information, organizational knowledge, and intelligent organizations.
- Recognize knowledge management processes within learning organizations and concerning their environment.
- Know and apply all the techniques and tools that allow identifying, capturing, processing, and disseminating knowledge within organizations.
- Analyze the resources that affect the development of knowledge management processes in an intelligent organization through a strategic alignment tool to demonstrate the value creation.
- Recognition of the need for, and an ability to engage in independent and life-long learning in the broadest context of technological change.
- Ability to apply reasoning informed by contextual knowledge to assess societal, health, safety, legal, and cultural issues, and the consequent responsibilities relevant to professional engineering practice.

V. Methodology

To achieve the objectives, the class sessions will have two parts, the first, conceptual, where the reading material will be reviewed, complemented with presentations by the professor and the students; the second part will be practical, where the concepts will be applied, and discussion based on the analysis of cases, controls, or exercises assigned in class will be encouraged.

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

Case Reports: The course is oriented toward real cases. The development of the case report is in a workgroup (max. 3 members). The case report should use the concepts of the corresponding sessions to develop frameworks and techniques that will allow them to analyze and solve the case critically (as research projects). The development of the document should be academic, technical, and efficient.
The case report body must contain an Introduction, Problem Definition, Analysis (diagnosis using course concepts), Practical Contribution (project initiatives in KM aligned to business strategy), Discussion, and Conclusions (by each group member). Finally, it is mandatory to the References with APA style.

Surprise Quizzes: It will take a minimum of five (5) pop quizzes during the course, covering aspects of professor presentations, cases, or readings assigned in the class session. These quizzes will consider the final session reviewed and/or the corresponding session to discuss.

VI. Evaluation

The evaluation system is integral and continuous. It involves the Permanent Evaluation Average (70%) and the Final Exam (30%).

The Final Evaluation Average (FA) makes of this way:

FA = (0,70 x PEA) + (0,30 x FE)

Where:
FA = Final Average
PEA = Permanent Evaluation Average
FE = Final Exam

Permanent Evaluation Average includes these items:

PERMANENT EVALUATION AVERAGE 70 %		
Type of evaluation	**Description**	**%**
Class Participation	Active Participation (Discuss, ask and answer)	10
Attendance	Class attendance will be valued positively	5
Case Reports	4 Case Reports	30
Quizzes	3 Quizzes	15
Final Project	Final Integral Project	40

VII. Content Calendar

Week	*Contents*	*Activities / Evaluation*
LEARNING UNIT I: Origins and Principles of Knowledge Management **LEARNING RESULTS:** • Recognize the differences between data, information, organizational knowledge, and intelligent organizations. • Ability to apply reasoning informed by contextual knowledge to assess societal, health, safety, legal, and cultural issues, and the consequent responsibilities relevant to professional engineering practice.		
1° **March 17-22**	**INTRODUCTION TO KNOWLEDGE MANAGEMENT (KM)** • What Is Knowledge Management? • ISO 30401 • Multidisciplinary Nature of KM • Types of Knowledge: Tacit and Explicit • Concept Analysis Technique • History of Knowledge Management • From Physical Assets to Knowledge Assets • KM for Individuals, Communities, and Organizations Dalkir (2023), *Knowledge Management in Theory and Practice* The MIT Press 4a Ed. Ch 1	Presentation of the course methodology
LEARNING UNIT II: Knowledge Management Process and Models **LEARNING RESULTS:** • Recognize knowledge management processes within learning organizations and concerning their environment. • Recognition of the need for, and an ability to engage in independent and life-long learning in the broadest context of technological change.		
2° **March 24-29**	**KNOWLEDGE MANAGEMENT PROCESSES** • Major Approaches to the KM Cycle • Meyer and Zack KM Cycle • Bukowitz and Williams KM Cycle • McElroy KM Cycle • Wiig KM Cycle • Integrated KM Cycle Dalkir (2023), *Knowledge Management in Theory and Practice* The MIT Press 4a Ed.. Ch 2	**Quiz 1** About Session 1
3° **March 31 to April 05**	**KNOWLEDGE MANAGEMENT MODELS** • Major Theoretical KM Models • Von Krogh and Roos Model of Organizational Epistemology • Nonaka & Takeuchi Knowledge Spiral Model • Choo Sense-Making KM Model • Wiig Model for Building and Using Knowledge • Boisot I-Space KM Model • Complex Adaptive System Models of KM • European Foundation for Quality Management (EFQM) KM Model Dalkir (2023), *Knowledge Management in Theory and Practice* The MIT Press 4a Ed.. Ch 3	**Quiz 2** About Session 2 Random assignment of cases for 1st Case-Report

LEARNING UNIT III: Knowledge Management Techniques

LEARNING RESULTS:

- Know and apply all the techniques and tools that allow identifying, capturing, processing, and disseminating knowledge within organizations.
- Recognition of the need for, and an ability to engage in independent and life-long learning in the broadest context of technological change.

4° **April 07-12**	**KNOWLEDGE CAPTURE AND CODIFICATION** • Tacit Knowledge Capture • Tacit Knowledge Capture at the Individual, Group • Tacit Knowledge Capture at Organizational Levels • Explicit Knowledge Codification Dalkir (2023), *Knowledge Management in Theory and Practice* The MIT Press 4a Ed.. Ch 4	**1st Case Report** Group Presentations
5° **April 14-19**	**KNOWLEDGE SHARING** • The Social Nature of Knowledge • Sociograms and Social Network Analysis • Community Yellow Pages • Knowledge-Sharing Communities • Roles and Responsibilities in CoPs • Knowledge Sharing in Virtual CoPs Dalkir (2023), *Knowledge Management in Theory and Practice* The MIT Press 4a Ed.. Ch 5	**Quiz 3** About Session 3 and 4
6° **April 21-26**	**FINDING KNOWLEDGE** • Knowledge Application at the Individual Level • Bloom's Taxonomy of Learning Objectives • Task Analysis and Modeling • Knowledge Application at the Group and Organizational Levels Dalkir (2023), *Knowledge Management in Theory and Practice* The MIT Press 4a Ed.. Ch 6	**Quiz 4** About Session 5 Random assignment of cases for the 2nd Case Report
7° **April 28 to May 03**	**ORGANIZATIONAL CULTURE** • Different Types of Cultures • Levels of culture • Organizational Maturity Models • Stages of Organizational Maturity • The Infosys KM Maturity Model • The KPQM Maturity Models • Forrester Group KM Maturity Model • CoP Maturity Models Dalkir (2023), *Knowledge Management in Theory and Practice* The MIT Press 4a Ed.. Ch 7	**2nd Case Report** Group Presentations
8° **May 05-10**	**Review of thems of week 1 to 7**	

9° **May 12-17**	**KNOWLEDGE MANAGEMENT TOOLS** • Knowledge Capture and Creation Tools • Major KM techniques, tools, and technologies. • Data Mining and Knowledge Discovery • Blogs and Mashups • Context Management Tools • Folksonomies and Social Tagging/Bookmarking • Personal Knowledge Management • Knowledge Sharing and Dissemination Tools • Groupware and Collaboration Tools • Intelligent Filtering Tools • Adaptive Technologies Dalkir (2023), *Knowledge Management in Theory and Practice* The MIT Press 4a Ed.. Ch 8	**Quiz 5** About Sessions 6 and 7 Tools Report. - Group Presentations
LEARNING UNIT IV: Resource-Based View (Strategy) to develop Knowledge Management as Intelligent Organization **LEARNING RESULTS:** • Analyze the resources that affect the developing of knowledge management processes in an intelligent organization through a strategic alignment tool to demonstrate the value creation. • Ability to apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues, and the consequent responsibilities relevant to professional engineering practice.		
10° **May 19-24**	**KNOWLEDGE MANAGEMENT STRATEGY** **AND PLANNING** • Developing a KM Strategy • Knowledge Audit • Gap Analysis • KM Strategy Road Map • Balancing Innovation and Organizational Structure • Types of Knowledge Assets Produced Dalkir (2023), *Knowledge Management in Theory and Practice* The MIT Press 4a Ed. Ch 9	**Quiz 6** About Session 9
11° **May 26-31**	**EVALUATING KNOWLEDGE MANAGEMENT** • KM Return on Investment (ROI) and Metrics • Benchmarking Method • Balanced Scorecard Method • House of Quality Method • Results-Based Assessment Framework • Measuring the Success of CoP Dalkir (2023), *Knowledge Management in Theory and Practice* The MIT Press 4a Ed. Ch 10	**Quiz 7** About Session 10 Random assignment of cases for 3rd Case Report

12° **June 02-07**	**ORGANIZATIONAL LEARNING AND ORGANIZATIONAL MEMORY** • How Do Organizations Learn and Remember? • Frameworks to Assess Organizational Learning and Organizational Memory • The Management of Organizational Memory • Organizational Learning • The Lessons Learned Process • Organizational Learning and Organizational Memory Models • Three-tiered approach to Knowledge Continuity Dalkir (2023), *Knowledge Management in Theory and Practice* The MIT Press 4a Ed. Ch 11	**3rd Case Report** Group Presentations
13° **June 09-14**	**THE KNOWLEDGE MANAGEMENT TEAM** • Major Categories of KM Roles • Senior Management Roles • KM Roles and Responsibilities within Organizations • The KM Profession • The Ethics of KM Dalkir (2023), *Knowledge Management in Theory and Practice* The MIT Press 4a Ed. Ch 13	**Quiz 8** About Sessions 11 and 12 Random assignment of cases for 4th Case Report
14° **June 16-21**	**FUTURE CHALLENGES FOR KM** • ISO 30401 Structure and requirements • Political Issues regarding Internet Search Engines • Politics of Organizational Context and Culture • Shift to Knowledge-Based Assets • Intellectual Property Issues • How to Provide Incentives for Knowledge Sharing? • KM Research • A Postmodern KM • Concluding Thought Dalkir (2023), *Knowledge Management in Theory and Practice* The MIT Press 4a Ed. Ch 14	**4th Case Report** Group Presentations
15° **June 23-28**	**FINAL PROJECT** • Presentation and discussion of the final project.,	
16° **June 30 to July 05**	**FINAL EXAM (June 30 to July 05)**	

VIII. References

Mandatory bibliography:

Course Textbook

- Dalkir, K. (2023). Knowledge Management in Theory and Practice (4rd edition). Cambridge, Massachusetts: The MIT Press.
- Shekar S.. (2021) Design Knowledge Management System: S practical guide for implementingiso 30401 KMS Standard. Penman Books 1a Ed
- Gomez Foronda, Susana. Intelligent Organizations (Spanish Edition). Penguin Random HousePublishing Group Spain
- Milton, N. and Lambe, P. (2020). The Knowlegde Manager´s Handbook (2nd edition). CPI Group (UK).
- Forsgren, R. (2022). Lean Knowledge Management (1st edition). Business Expert Press, New York.

Complementary bibliography:

Recommended Books

- Hislop, D., Bosua, R., & Helms, R. (2018). Knowledge management in organizations: A critical introduction. (4th edition) Oxford: Oxford University Press.
- Mohapatra, S., Agrawal, A., & Satpathy, A. (2016). Designing Knowledge Management-Enabled Business Strategies. Switzerland: Springer.
- Becerra-Fernandez, I., & Sabherwal, R. (2015). Knowledge Management. Systems and Processes. (2nd edition). New York: M.E.Sharpe.
- North, K., & Kumta, G. (2014). Knowledge management: Value creation through organizational learning. Switzerland: Springer.
- Jashapara, A. (2011). Knowledge Management: An Integrated Approach (2nd edition). Harlow: Pearson Education Limited.

Recommended Research Papers

- Ramadan, B. M., Dahiyat, S. E., Bontis, N., & Al-Dalahmeh, M. A. (2017). Intellectual capital, knowledge management and social capital within the ICT sector in Jordan. Journal of Intellectual Capital, 18(2), 437-462.
- Robles, J.; Vilcapoma, E. & Matute, G. (2006). Identificación de Redes de Conocimientomediante el Análisis de Redes Sociales. *AMCIS 2006 Proceedings*. Paper 516.
- 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 Professor

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