Course Syllabus

Project Management

March – July 2025

Term IX

Professor

Choy Pun, Augusto Carlos

I. General Course Information

Subject:	Project Management		
Pre-requisite:	Planeación Estratégica, y Diseño y Evaluación de Proyectos (Strategic Planning and Project Design and Appraisal)	**Code:**	04720
Precedent:	None	**Semestre:**	2025-1
Credits:	3	**Term:**	IX
Weekly Hours:	4	**Course type:**	In presence
Type Career(s)	Mandatory Information Technology and Systems Industrial and Commercial Engineering	**Course Coordinator:**	Joseph Ballón jballon@esan.edu.pe

II. Summary

This course provides students with the base knowledge of Project Management processes, through the initial, planning, execution, follow-up, control, and closing cycles. Promotes management skills build-up via project development in multidisciplinary teams.

III. Course Objectives

The objective of the course is to design a Project Management Plan related to a Capstone Project, applying concepts, tools, and techniques based on best practices accepted worldwide.

IV. Learning Results

At the end of the course, students will be able:

- To know important concepts about Project Management, focus on the Knowledge Management Areas proposed by The Project Management Book of Knowledge - PMBOK 6th edition.
- To apply concepts and tools for effective management of projects.
- To design a Project Charter, Stakeholder Analysis, Requirements, and WBS linked to Capstone Project.
- To design a Schedule, Budget, and Quality Metrics linked to Capstone Project.

- To know the importance of Soft Skills in Project Management.
- To design a RACI Matrix, Communication Matrix, and Procurement Matrix linked to Capstone Project.
- To Perform a Qualitative Risk Analysis linked to Capstone Project.
- To develop a sense of accountability for the final Capstone Project results.
- The ability to design solutions to complex engineering problems and design systems, components, or processes to meet desired needs within realistic public health and safety, cultural, social, economic, and environmental constraints.
- The ability to perform effectively as an individual, as a member, or leader of diverse teams.
- The ability to identify, formulate, search for information, and analyze complex engineering problems to reach informed conclusions using basic principles of mathematics, natural science, and engineering science.
- The ability to communicate effectively, by understanding and writing reports and design documentation, making presentations, and transmitting and receiving clear instructions.
- The ability to create, select and use modern engineering and information technology techniques, skills, resources, and tools, including prediction and modeling, with an understanding of their limitations.

V. Methodology

The methodology is based on the active participation of students, using methods and techniques acquired in class.

There will be sessions explained by the professor with lectures and discussions in groups, case studies, reading papers, practice exercises, and an integrator assignment.

There are mandatory readings from complementary material and these should be completed by students according to the course schedule.

Learning Teams Activities
During the regular sessions, students will work in pairs or small informal groups to analyze cases or issues that we will discuss during the session. Student participation is expected and included as part of PEP grade.

In the second week, the class will set up formal Learning Teams of 3 to 5 students; these Learning Teams will complete and present a Case Study before the Mid-Term Exam. If a student experiences difficulty working with his/her team, he/she should resolve those issues with his/her teammates, but if, however, that is not possible, please raise those issues with your teacher.

ESAN students work effectively in diverse groups and teams to achieve tasks and goals. They collaborate and function well in team settings performing leader as well as follower roles. They should respect diversity and behave in a tolerant fashion toward colleagues.

VI. Evaluation

The evaluation system is comprehensive and continuous to promote learning in the student. The final grade is composed of Continuous Evaluation (PEP) (70%) and Final exam (30%).

The Average Permanent Evaluation is calculated based on the student's learning process follow-up: Reading Controls/ Quizzes / Cases/ Presentations / Research Work / Class Contribution. The weighted average of these marks results in the corresponding score.:

AVERAGE PERMANENT EVALUATION 70%		
Type of evaluation	**Description**	**Weight %**
Class contribution	Involvement in discussions	15
Attendance	Attending class	5
Reading Controls (RC)	Five RC quizzes (6% each)	30
Special Individual Assignment	The students present an academic reading material proposed by the professor (about 10 minutes)	10
Capstone Project	During the semester the students will develop a Project Management Plan and develop workshops about the topics performed in class, Two Team Deliverables (25 marks each)	50

Final Grade (PF) is calculated using the following formula:

$$PF = (0{,}70 \times PEP) + (0{,}30 \times EF)$$

Where:

PF = Final Grade
PEP = Continuous Evaluation
EF = Final Exam

VII. Programmed Content

WEEK	CONTENTS	ACTIVITIES / EVALUATION
Learning Unit 1: Project Management Body of Knowledge – Part 01 **Learning Results:** • To know important concepts about Project Management, focus on Integration and Scope Management, proposed by the Project Management Book of Knowledge - PMBOK 6th edition. • To apply concepts and tools for effective management of projects. • To design a Project Charter, Stakeholder Analysis, Requirements, and WBS linked to the Capstone Project. • The ability to design solutions to complex engineering problems and design systems, components, or processes to meet desired needs within realistic public health and safety, cultural, social, economic, and environmental constraints. • The ability to perform effectively as an individual, as a member or leader of diverse teams.		
1° March 17 - 22	**Topics:** 1.1 Introduction and Integration Management. - Project Management introduction. PMBOK and its sections. - PMBOK 6 ed – Chapters 1 to 3 - AXELOS (*2017)* – Chapters 1 & 2	Presentation: Course Methodology Guidelines review for the development of the final Capstone Project. APA standards • Lecture. • Define teams
2° March 24 – 29	**Topics:** 2.1 Integration Management. - Project Charter. - Project Management Plan. - Integration Management Process. - Project Canvas 2.2 Value Creation. Team Working - PMBOK 6 ed – Chapters 4 - PMBOK 7 ed - Standard – Chapters 2 - AXELOS (*2017)* – Chapters 3	• Lecture. • Workshop N° 01 (Project Canvas) **Assign** RC 1 week 3
3° March 31 - April 05	**Topics:** 3.1 Stakeholders Management - Learning about Stakeholders' techniques - Review Stakeholders Management Processes Managing stakeholders 3.2 Stakeholders Performanc Domain - PMBOK 6 ed – Chapter 13 - PMBOK 7 ed – A Guide – Section 2.1 - AXELOS (*2017)* – Chapters 7	• Lecture • Workshop N° 02 (Stakeholder Analysis) • Post Capstone Project • Reading Control N° 01 Schedule of visits for Capstone Assign RC 2 week 5

<table>
<tr><th>WEEK</th><th>CONTENTS</th><th>ACTIVITIES / EVALUATION</th></tr>
<tr><td>4°

April 07 - 12</td><td>Topics:
4.1 Scope Management.
- Scope Project and Scope Product.
- Scope Management Process.
Work Breakdown Structure as Fundamental Tool
4.2 Development Approach
- PMBOK 6 ed – Chapter 5
- PMBOK 7 ed – A Guide – Section 2.3
- AXELOS (2017) – Chapters 4 & 5</td><td>• Lecture
• Workshop N° 03 (Requirements and WBS)
• Integrated Presentation
Assign Capstone deliverable 1 Week 7</td></tr>
<tr><td colspan="3">Learning Unit 2: Project Management Body of Knowledge – Part 02
Learning Results:
• To design a Schedule, Budget and Quality Metrics linked to Capstone Project.
• The ability to identify, formulate, search for information, and analyze complex engineering problems to reach informed conclusions using basic principles of mathematics, natural science, and engineering science.</td></tr>
<tr><td>5°

April 14 - 16</td><td>Topics:
5.1 Time Management.
- Time Management Processes.
- Estimation Techniques of Time.
Critical Path Method and Techniques of Compression.
5.2 Team Performance Domain
- PMBOK 6 ed – Chapter 6
- PMBOK 7 ed – A Guide – Section 2.2
- AXELOS (2017) – Chapters 6</td><td>• Lecture.
• Presentation – Capstone Project Management
• MS Project lab exercise - Time in Project Management
• Exercises – Critical Path.
• Reading Control N° 02
Integrated Presentation</td></tr>
<tr><td>6°

April 21 - 26</td><td>Topics:
6.1 Cost Management.
- Cost Management Processes.
- Estimation Techniques of Cost.
Earned Value Method.
- PMBOK 6 ed – Chapter 7
- PMBOK 7 ed – A Guide - Section 2.5.5
- AXELOS (2017) – Chapters 9 & 11</td><td>• Lecture.
• Exercises - Earned Value.
• Workshop N° 04 (Schedule and Budget)
• MS Project lab exercise – Cost in Project Management</td></tr>
<tr><td>7°

April 28 - May 03</td><td>Topics:
7.1 Quality Management.
- Quality Management Processes.
The Seven Fundamental Quality Tools.
- PMBOK 6 ed – Chapter 8
- PMBOK 7 ed – A Guide - Section 2.6.3
- AXELOS (2017) – Chapters 8</td><td>• Lecture.
• Workshop N° 05 (Quality Metrics)
• Integrated Presentation
Assign RC 3 week 9
Capstone 1 Deliverable and Presentation due</td></tr>
<tr><td>8°

May 05 - 10</td><td colspan="2">PROJECT 1st Presentation</td></tr>
</table>

WEEK	CONTENTS	ACTIVITIES / EVALUATION
Learning Unit 3: Project Management Body of Knowledge – Part 03 and Soft Skills. **Learning Results:** • To know the importance of Soft Skills in Project Management • To design a RACI Matrix, Communication Matrix and Procurement Matrix linked to Capstone Project. • To Perform a Qualitative Risk Analysis linked to Capstone Project. The ability to create, select and use modern engineering and information technology techniques, skills, resources and tools, including prediction and modeling, with an understanding of their limitations.		
9° May 12 - 17	**Topics:** 9.1 Resources Management. - Resources Management Processes Teambuilding. - PMBOK 6 ed – Chapter 9 - PMBOK 7 ed – A Guide – Section 2.5.5 - AXELOS (*2017*) – Chapters 13 - 14	• Lecture. • Reading Control Nª 03 • Workshop N° 06 (Organization Chart and RACI Matrix) • Post Special Assignment for week 13
10° May 19 - 24	**Topics:** 10.1 Communication Management. - Communication Management Processes. - Communication Matrix and Lessons Learned. 10.2 Soft Skills in Project Management. - The importance of Soft Skills for a Project Manager. - Communication and Motivation. - Leadership as fundamental skill. Negotiation and Solution of Conflicts - PMBOK 6 ed – Chapter 10 - PMBOK 7 ed – A Guide – Section 2.5.4 - AXELOS *(2017)* – Chapters 15 - 17	• Lecture. • Workshop N° 07 (Communications Matrix) • Integrated Presentation **Assign** RC 4 week 11 and Capstone Advance 02 Final Presentation Week 15
11° May 26 - 31	**Topics:** 11.1 Procurement Management. - Procure Management Processes. Procure Matrix and Management of Suppliers - PMBOK 6 ed – Chapter 12 - AXELOS (*2017*) – Chapters 12 - 14	• Lecture. • Reading Control N° 04 • Workshop N° 08 (Procurement Matrix)
12° June 02 - 06	**Topics:** 12.1 Risk Management. - Risk Management Processes. Risk Matrix and Risk Break Down Structure - PMBOK 6 ed – Chapter 11 - PMBOK 7 ed – A Guide – Section 2.5.7 - AXELOS *(2017)* – Chapters 10 & 15	• Lecture. • Workshop N° 09 (Risk Matrix) • Integrated Presentation • Assign RC 5 week 14

<table>
<tr><th>WEEK</th><th>CONTENTS</th><th>ACTIVITIES / EVALUATION</th></tr>
<tr><td colspan="3">Learning Unit 4: Project Management Body of Knowledge – Part 04.
Learning Results:
• To learn about Agile Methodologies – Scrum Framework.
The ability to communicate effectively, by understanding and writing reports and design documentation, making presentations, and transmitting and receiving clear instructions.</td></tr>
<tr><td rowspan="2">13°

June 09 - 14</td><td>Topics:
13.1 Presentation – Project Management Special Assignment.</td><td rowspan="2">• Presentation – Project Management - Special Assignment.</td></tr>
<tr><td>- AXELOS (2017) – Chapters 16 & 20</td></tr>
<tr><td rowspan="2">14°

June 16 - 21</td><td>Topic:
Final Presentation - Integrated Project Management Plan</td><td rowspan="2">• Presentation – Definitive Guide to SCRUM
• Reading Control N° 05</td></tr>
<tr><td>The Scrum Guide, The Definitive Guide to Scrum</td></tr>
<tr><td>15°

June 23 - 28</td><td>Topic:
Framework - Scrum</td><td>• Final Presentation – Kick Off Meeting.
• Presentation – Capstone Project Management</td></tr>
<tr><td>16°

June 30 - July 05</td><td colspan="2">FINAL EXAMS</td></tr>
</table>

VIII. Bibliography

Mandatory Bibliography

- Project Management Institute - PMI. (2021). *Project Management Body of Knowledge*. (7th ed). Pennsylvania: PA, USA. Book Editor – PMI Publications.
- Project Management Institute - PMI. (2017). *Project Management Body of Knowledge*. (6th ed). Pennsylvania: PA, USA. Book Editor – PMI Publications.
- AXELOS, The Stationery Office (editor) (2018)- *Managing Successful Projects with PRINCE2 2017* Edition-TSO
- Project Management Institute - PMI. (2009). *Practice Standard for Project Risk Management*. Pennsylvania: PA, USA. Book Editor – PMI Publications.
- Project Management Institute - PMI. (2006). *Practice Standard for Work Breakdown Structures*. (2nd ed). Pennsylvania: PA, USA. Book Editor – PMI Publications.
- Project Management Institute - PMI. (2001). *People in Projects*. Pennsylvania: PA, USA. Book Editor – PMI Publications.
- Schwaber, K & Sutherland J. (2017). *The Scrum Guide.* Retrieved from www.scrumguides.org

Recommended Bibliography

- Dr. James W. Marion, Dr. Tracey Richardson (2022)- Managing Projects With PMBOK 7_ Connecting New Principles With Old Standards-Business Expert Press (2022)
- Academy, Skill Valley - PMI PMP PMBOK 7 Practice Exam Book_ Over 3 Full Practice Tests, offering 540+ realistic PMP questions aligned with PMBOK Guide, 7th Edition and 2021 ECO with detailed explanations (2023)
- David G. Carmichael (2022)- Risk and Systems_ With Applications in Infrastructure Project Management-CRC Press
- Christian Smart (2021)- Solving for Project Risk Management-McGraw-Hill Education
- Project Management Institute (2020)- The Standard for Earned Value Management-Project Management Institute
- Project Management Institute - The Standard for Risk Management in Portfolios, Programs, and Projects-Project Management Institute (2019)
- Project Management Institute - Practice Standard for Work Breakdown Structures-Project Management Institute (2019)
- Moritz Knueppel - The Scrum Guide Explained A Comprehensive Analysis of the Scrum Guide (2020)
- Josh Wright - Scrum_ The Complete Guide to the Agile Project Management Framework that Helps the Software Development Lean Team to Efficiently Structure and Simplify the Work & Solve Problems in Half
- IT Governance (editor) - The PRINCE2 Agile® Practical Implementation Guide – Step-by-step Advice for Every Project Type-It Governance Publishing (2021)
- (Essential Short Guides) Robin Catling - The Essential Short Guide to PRINCE2®_ Introducing PRojects IN Controlled Environments-Proactivity Press (2021)
- David-Hinde-PRINCE2-Study-Guide_-2017-Update-Orgtopia-(2021)
- Fred Heath - The Professional Scrum Master (PSM I) Guide_ Successfully practice Scrum in real-world projects and achieve PSM I certification with confidence-Packt Publishing (2021)
- Kezner, H. (2013). *Project Management a systems approach to planning, scheduling and controlling (11th* ed). New Jersey: NJ, USA. John Wiley & Sons Inc.
- Brown, J. (2008). The Handbook of Program Management. How to facilitate project success with optimal program management. New York, NY: McGraw Hill.
- Levatec, C. (2006). The Program Management Office – Establishing, Managing and Growing the Value of a PMO. Florida: FL, USA. J. Ross Publishing Inc.
- Project Management Institute Portal. Retrieved from www.pmi.org.

Research Ethics:

PLEASE NOTE: Internet searches will often take you to non-academic information resources. You may supplement your research with these sources, but keep in mind that the information you find there may not be accurate since it does not come under a formal oversight or peer-review process.

While you may use and cite non-academic resources such as Wikipedia when working on assignments, you may not rely on them exclusively. The majority of your sources should be peer-reviewed academic journals. Further, remember that you are responsible for the accuracy of any facts you present in your assignments and therefore should confirm the veracity of information you find on non-academic sources through further research.

IX. Professors

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