



# **Syllabus of course Project Management**

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**August – December 2021**

**Term IX**

**Choy Pun, Augusto Carlos**

## I. Course Overview

<b>Course Name:</b>	Project Management		
<b>Required:</b>	Strategic Planning, Project formulation and appraisal	<b>Code:</b>	04720
<b>Precedent:</b>	---	<b>Semester:</b>	2021-2
<b>Credits:</b>	3	<b>Term:</b>	9
<b>Hours:</b>	4	<b>Type of course:</b>	Remote - Synchronous
<b>Type of course and careers</b>	<b>Mandatory courses:</b> Information Technology and Systems Engineering Industrial and Commercial Engineering	<b>Coordinator:</b>	Joseph Ballon <a href="mailto:jballon@esan.edu.pe">jballon@esan.edu.pe</a>

## 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 an effective management for 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 the sense of accountability about 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 an active participation of students, using methods and techniques acquired in class.

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

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

## VI. Evaluation

The evaluation system is comprehensive and continuous. It involves the Permanent Evaluation (60%), the Mid-Term Exam (20%) and Final Exam (20%).

Permanent Evaluation includes these items:

<b>PERMANENT EVALUATION AVERAGE: 60%</b>		
<b>Type of evaluation</b>	<b>Description</b>	<b>Weight</b>
Project Management – Capstone Project	During the course, the students will deliver a Project Management Plan and develop workshops about topics performed in class.	30%
Reading Controls	Four Reading Controls	20%
Reading Presentations	Four Reading Presentations	20%
Special Assignment	The students will present a special lecture (5 – 10 min) about a specific topic proposed by the professor	10%
Classroom participation		15%
Attendance		5%

The Final Average (FA) makes of this way:

$$FA = (0,60 \times PE) + (0,20 \times ME) + (0,20 \times FE)$$

**Where:**

FA = Final Average.

ME = Midterm Exam.

PE = Permanent Evaluation Average and,

FE = Final Exam.

**VII. Content Scheduled**

WEEK	UNIT	ACTIVITIES / EVALUATION
<b>Learning Unit 1: Project Management Body of Knowledge – Part 01</b> <b>Learning Results:</b>		
<ul style="list-style-type: none"> <li>• To know important concepts about Project Management, focus on Integration and Scope Management, proposed by the Project Management Book of Knowledge - PMBOK 6<sup>th</sup> edition.</li> <li>• To apply concepts and tools for an effective management for projects.</li> <li>• To design a Project Charter, Stakeholder Analysis, Requirements and WBS linked to Capstone Project.</li> <li>• 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.</li> <li>• The ability to perform effectively as an individual, as a member or leader of diverse teams.</li> </ul>		
<p style="text-align: center;"><b>1°</b> Aug, 23rd –29th</p>	<p><b>Topics:</b>            1.1 Introduction and Integration Management.            - Project Management introduction.            - PMBOK and its sections.</p> <hr/> <p>- Project Management Body of Knowledge (PMBOK) – Chapters 1 to 3            - AXELOS, <i>Managing Successful Projects with PRINCE2 2017</i> – Chapters 1 &amp; 2</p>	<p>Presentation: Course Methodology            Guidelines review for the development of the final Capstone Project.            APA standards</p> <ul style="list-style-type: none"> <li>• Lecture.</li> <li>• Define teams</li> </ul>
<p style="text-align: center;"><b>2°</b> Aug 30th Sep 05th</p>	<p><b>Topics:</b>            2.1 Integration Management.            - Project Charter.            - Project Management Plan.            - Integration Management Process.            - Project Canvas</p> <p>2.2 Tips for project management.            - Planning.            - Executing.            - Monitoring and Controlling.            - Team Working</p> <hr/> <p>- Project Management Body of Knowledge (PMBOK) – Chapter 4            - AXELOS, <i>Managing Successful Projects with PRINCE2 2017</i> – Chapters 3</p>	<ul style="list-style-type: none"> <li>• Lecture.</li> <li>• Workshop N° 01 (Project Canvas)</li> </ul>

WEEK	UNIT	ACTIVITIES / EVALUATION
<b>3°</b> Sep 06th – 12th	<b>Topics:</b> 3.1 Stakeholders Management <ul style="list-style-type: none"> <li>- Learning about Stakeholders techniques</li> <li>- Review Stakeholders Management Processes</li> <li>- Managing stakeholders</li> </ul> - Project Management Body of Knowledge (PMBOK) – Chapter 13 - AXELOS, <i>Managing Successful Projects with PRINCE2 2017</i> – Chapters 4	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Workshop N° 02 (Stakeholder Analysis)</li> <li>• Reading Control N° 01</li> <li>• Schedule of visits for Capstone</li> </ul>
<b>4°</b> Sep 13th – 19th	<b>Topics:</b> 4.1 Scope Management. <ul style="list-style-type: none"> <li>- Scope Project and Scope Product.</li> <li>- Scope Management Process.</li> <li>- Work Breakdown Structure as Fundamental Tool</li> </ul> - Project Management Body of Knowledge (PMBOK) – Chapter 5 - AXELOS, <i>Managing Successful Projects with PRINCE2 2017</i> – Chapters 5-6	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Workshop N° 03 (Requirements and WBS)</li> <li>• Integrated Presentation</li> <li>• Capstone – Advance 01</li> </ul>
<b>Learning Unit 2: Project Management Body of Knowledge – Part 02</b> <b>Learning Results:</b> <ul style="list-style-type: none"> <li>• To design a Schedule, Budget and Quality Metrics linked to Capstone Project.</li> <li>• 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.</li> </ul>		
<b>5°</b> Sep 20th – 26th	<b>Topics:</b> 5.1 Time Management. <ul style="list-style-type: none"> <li>- Time Management Processes.</li> <li>- Estimation Techniques of Time.</li> <li>- Critical Path Method and Techniques of Compression.</li> </ul> - Project Management Body of Knowledge (PMBOK) – Chapter 6 - AXELOS, <i>Managing Successful Projects with PRINCE2 2017</i> – Chapters 7-8	<ul style="list-style-type: none"> <li>• Lecture.</li> <li>• Presentation – Capstone Project Management</li> <li>• MS Project lab exercise - Time in Project Management</li> <li>• Exercises – Critical Path.</li> <li>• Reading Control N° 02</li> <li>• Integrated Presentation</li> </ul>
<b>6°</b> Sep 27th Oct 03rd	<b>Topics:</b> 6.1 Cost Management. <ul style="list-style-type: none"> <li>- Cost Management Processes.</li> <li>- Estimation Techniques of Cost.</li> <li>- Earned Value Method.</li> </ul> - Project Management Body of Knowledge (PMBOK) – Chapter 7 - AXELOS, <i>Managing Successful Projects with PRINCE2 2017</i> – Chapters 9 -10	<ul style="list-style-type: none"> <li>• Lecture.</li> <li>• Exercises - Earned Value.</li> <li>• Workshop N° 04 (Schedule and Budget)</li> <li>• MS Project lab exercise – Cost in Project Management</li> <li>• Capstone – Advance 02</li> </ul>
<b>7°</b> Oct 04th – 10th	<b>Topics:</b> 7.1 Quality Management. <ul style="list-style-type: none"> <li>- Quality Management Processes.</li> <li>- The Seven Fundamental Quality Tools.</li> </ul> - Project Management Body of Knowledge (PMBOK) – Chapter 8 - AXELOS, <i>Managing Successful Projects with PRINCE2 2017</i> – Chapters 11 - 12	<ul style="list-style-type: none"> <li>• Lecture.</li> <li>• Workshop N° 05 (Quality Metrics)</li> <li>• Integrated Presentation</li> </ul>
<b>8°</b> Oct 11th – 17th	<b>MIDTERM EXAM</b>	

WEEK	UNIT	ACTIVITIES / EVALUATION
<p><b>Learning Unit 3: Project Management Body of Knowledge – Part 03 and Soft Skills.</b></p> <p><b>Learning Results:</b></p> <ul style="list-style-type: none"> <li>To know the importance of Soft Skills in Project Management</li> <li>To design a RACI Matrix, Communication Matrix and Procurement Matrix linked to Capstone Project.</li> <li>To Perform a Qualitative Risk Analysis linked to Capstone Project.</li> <li>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.</li> </ul>		
<p><b>9°</b> Oct 18th – 24th</p>	<p><b>Topics:</b> 9.1 Resources Management.</p> <ul style="list-style-type: none"> <li>Resources Management Processes</li> <li>Teambuilding.</li> </ul> <p>- Project Management Body of Knowledge (PMBOK) – Chapter 9 - AXELOS, <i>Managing Successful Projects with PRINCE2 2017</i> – Chapters 13 - 14</p>	<ul style="list-style-type: none"> <li>Lecture.</li> <li>Reading Control N° 03</li> <li>Workshop N° 06 (Organization Chart and RACI Matrix)</li> </ul>
<p><b>10°</b> Oct 25th – 31st</p>	<p><b>Topics:</b> 10.1 Communication Management.</p> <ul style="list-style-type: none"> <li>Communication Management Processes.</li> <li>Communication Matrix and Lessons Learned.</li> </ul> <p>10.2 Soft Skills in Project Management.</p> <ul style="list-style-type: none"> <li>The importance of Soft Skills for a Project Manager.</li> <li>Communication and Motivation.</li> <li>Leadership as fundamental skill.</li> <li>Negotiation and Solution of Conflicts</li> </ul> <p>- Project Management Body of Knowledge (PMBOK) – Chapter 10 - AXELOS, <i>Managing Successful Projects with PRINCE2 2017</i> – Chapters 15 - 17</p>	<ul style="list-style-type: none"> <li>Lecture.</li> <li>Workshop N° 07 (Communications Matrix)</li> <li>Integrated Presentation</li> <li>Capstone – Advance 03</li> </ul>
<p><b>11°</b> Nov 01st – 07th</p>	<p><b>Topics:</b> 11.1 Procurement Management.</p> <ul style="list-style-type: none"> <li>Procure Management Processes.</li> <li>Procure Matrix and Management of Suppliers</li> </ul> <p>- Project Management Body of Knowledge (PMBOK) – Chapter 12 - AXELOS, <i>Managing Successful Projects with PRINCE2 2017</i> – Chapters 18 - 20</p>	<ul style="list-style-type: none"> <li>Lecture.</li> <li>Reading Control N° 04</li> <li>Workshop N° 09 (Procurement Matrix)</li> </ul>
<p><b>12°</b> Nov 08th – 14th</p>	<p><b>Topics:</b> 12.1 Risk Management.</p> <ul style="list-style-type: none"> <li>Risk Management Processes.</li> <li>Risk Matrix and Risk Break Down Structure</li> </ul> <p>- AXELOS, <i>Managing Successful Projects with PRINCE2 2017</i> – Chapters 21</p>	<ul style="list-style-type: none"> <li>Lecture.</li> <li>Workshop N° 10 (Risk Matrix)</li> <li>Integrated Presentation</li> <li>Capstone – Advance 04</li> </ul>
<p><b>Learning Unit 4: Project Management Body of Knowledge – Part 04.</b></p> <p><b>Learning Results:</b></p> <ul style="list-style-type: none"> <li>To learn about Agile Methodologies – Scrum Framework.</li> <li>The ability to communicate effectively, by understanding and writing reports and design documentation, making presentations, and transmitting and receiving clear instructions.</li> </ul>		
<p><b>13°</b> Nov 15th – 21st</p>	<p><b>Topics:</b> 13.1 Presentation – Project Management Special Assignment.</p>	<ul style="list-style-type: none"> <li>Presentation – Project Management Special Assignment.</li> </ul>

WEEK	UNIT	ACTIVITIES / EVALUATION
<b>14°</b> Nov 22nd – 28th	<b>Topic:</b> 14.1 Final Presentation - Integrated Project Management Plan	<ul style="list-style-type: none"> <li>Final Presentation – Kick Off Meeting.</li> <li>Presentation – Capstone Project Management</li> </ul>
	The Scrum Guide, The Definitive Guide to Scrum	
<b>15°</b> Nov 29th Dec 05th	<b>Topic:</b> 15.1 Framework - Scrum	<ul style="list-style-type: none"> <li>Presentation – Definitive Guide to SCRUM</li> </ul>
<b>16°</b> Dec 06th – 12th	<b>FINAL EXAM</b>	

## VIII. Bibliography

### Mandatory Bibliography

- Project Management Institute - PMI. (2017). *Project Management Body of Knowledge*. (6<sup>th</sup> ed). Pensilvania: 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*. Pensilvania: PA, USA. Book Editor – PMI Publications.
- Project Management Institute - PMI. (2006). *Practice Standard for Work Breakdown Structures*. (2<sup>nd</sup> ed). Pensilvania: PA, USA. Book Editor – PMI Publications.
- Project Management Institute - PMI. (2001). *People in Projects*. Pensilvania: PA, USA. Book Editor – PMI Publications.
- Schwaber, K & Sutherland J. (2017). *The Scrum Guide*. Retrieved from [www.scrumguides.org](http://www.scrumguides.org)

### Secondary Bibliography

- Kezner, H. (2013). *Project Management a systems approach to planning, scheduling and controlling* (11<sup>th</sup> 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](http://www.pmi.org).

## IX. Labs

Not required

## X Professor

Choy Pun, Augusto Carlos  
[achoy@esan.edu.pe](mailto:achoy@esan.edu.pe)