



**NATIONAL UNIVERSITY OF ENGINEERING**  
**COLLEGE OF ELECTRICAL AND ELECTRONICS ENGINEERING**

**TELECOMMUNICATIONS ENGINEERING PROGRAM**

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**CI106 – PROJECT MANAGEMENT**

**I. GENERAL INFORMATION**

<b>CODE</b>	: CI106 – Project Management
<b>SEMESTER</b>	: 9
<b>CREDITS</b>	: 02
<b>HOURS PER WEEK</b>	: 02 (Theory)
<b>PREREQUISITES</b>	: IT515 – Telecommunications III
<b>CONDITION</b>	: Mandatory

**II. COURSE DESCRIPTION**

This course provides students the fundamentals of project management that will allow future telecommunications engineers plan/manage/execute any telecommunications project. Students will be able to manage technological projects related to telecommunications engineering under different constraints. Analysis of cases studies are included as part of the course.

**III. COURSE OUTCOMES**

At the end of the course the student will:

- Know how a technological project is born, how the problem statement is developed.
- Know how the theoretical framework of a project is developed.
- Understand how a project is formulated and how different constraints affect the planning and execution of projects.
- Calculate costs and budgets necessary for the development of a project.
- Know how to work in teams and interact with team members to solve problems.

**IV. LEARNING UNITS**

- 1. Project Management Overview**  
Attributes of a project, life cycle of a project, process of management a project
- 2. Process of implementation of a technological project**  
Methodological and technical aspects of a project
- 3. Global vision of project management**  
Project structure plan (PEP)
- 4. Global vision. Project structure plan (DEP)**

**5. Programming in project management**

Estimated duration of activities, start and end of a project, programming the tasks in a project.

**6. Budgeting**

Estimated cost of the project, elaboration of the project budget.

**7. Control in project management**

Changes in project (time, resources, costs, etc.), effects of changes in project execution.

**8. Control of funds in the project**

Determination of real cost, performance analysis of the project

**9. Financial control in the project**

**10. Project Closure**

Activities during project closure. Final cost of the project.

**11. Materials management in project management**

**12. Sales in project management**

**V. METHODOLOGY**

The course takes place in theory and practice sessions. In these sessions the professor presents the concepts and bases for structuring projects in telecommunications engineering. Also, in these sessions, application examples will be proposed and students should solve using the concepts learned. In all classes the active participation of the student is promoted both in the analysis and in the solution of problems.

**VI. EVALUATION FORMULA**

The learning will be evaluated through the "B" system:

- Midterm Exam (ME): weights as 1
- Final Exam (FE): weights as 2

The Final Grade (FG) is obtained as follows:

$$FG = \frac{ME + 2 * FE}{3}$$

**VII. BIBLIOGRAPHY**

- "Implementing SAP R/3: The For Business and Technology Mangers", Kale Vivekk, 2000.
- "The Art of Project Management", Scott Berkun. O'Reilly Media, 2005
- "Guide to Research Projects for Engineering Students", Eng Choon, Carmel Lee. CRC Press, 2015.