



# NATIONAL UNIVERSITY OF ENGINEERING

## COLLEGE OF CIVIL ENGINEERING

### CIVIL ENGINEERING PROGRAM

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## CO822 – TERRITORIAL CONDITIONING I

### I. GENERAL INFORMATION

<b>CODE</b>	: CO822 – Territorial Conditioning I
<b>SEMESTER</b>	: 8
<b>CREDITS</b>	: 03
<b>HOURS PER WEEK</b>	: 06 (Theory – Workshop)
<b>PREREQUISITES</b>	: TV561 , CO622
<b>CONDITION</b>	: Mandatory

### II. COURSE DESCRIPTION

The course prepares the student in the application of the concepts, methods and techniques for urban and regional planning management, with an emphasis on civil engineering. The historical process of human establishment and planning will be presented; some cases of planning will be studied; Planning theory will be studied, and an introduction to planning methodology will be presented.

### III. COURSE OUTCOMES

At the end of the course the student will:

- Analyze the historical process of civilization, from nomadic culture, through rural culture, and reaching the culture of cities.
- Develop scientific research through a Bibliographic Research Work, in which the student will learn to present a topic, program, bibliography; develop research techniques, analysis, synthesis and adequate presentation of the final work.
- Identify the urban, social, political, economic, environmental characteristics of ancient, medieval, bourgeois, Renaissance, industrial, modern and contemporary cities.
- Include the process of civilization and creation of cities, as well as the reason for the urban characteristics of the city of the present.
- Understand the importance of urban and regional planning studies to decide the appropriate civil infrastructure works that a city - region needs.
- Understand the relationship between urban planning and civil engineering.

### IV. LEARNING UNITS

**A. Introduction**, Objectives and Program. Reference bibliography. Technique to be followed in the research work. (6 hours)

**B. HISTORICAL PROCESS OF HUMAN ESTABLISHMENT AND PLANNING**

Process of civilization: Nomadic, rural and city culture. Societies or civilizations in history. Toynbee's thesis. (6 hours)  
The rise of western Christian civilization and its expansion. (6 hours)  
The cultural revolution of the renaissance. The renaissance city. The industrial Revolution. The new mechanized era of life. (6 hours)  
The emergence of cities. The urbanization process. Switching The social issue (6 hours)  
The urban planning. The idealist reforming approach: the socialist utopians.  
The pragmatic computer approach. The garden city of Ebenezer Howard. (6 hours)  
The second industrial revolution and transport and communications. Other effects of the transport and communications revolution. Environmental pollution. The modern utopians. (6 hours)

#### WEEK OF PARTIAL EXAMS (Written Support 1)

The depersonalization of man by social massification in cities. The idea of the neighborhood unit. Other effects of the transport and communications revolution: The escape to the suburb. Centrifugal force. The linear development of cities. The contemporary city. The conurbation. Characteristics of the contemporary problem that tries to solve the planning. (6 hours)

### **C. TYPES AND PLANNING METHODS (CASES)**

Planning a predominantly rural region for the optimal use of its natural resources, with economic objectives: the case of the TVA. Planning a predominantly urban region: the London metropolitan area, with social objectives: the case of the London Plan. Comprehensive planning: national, regional and local, with social, economic and political objectives: the case of the Israel Plan. (6 hours)

### **D. PLANNING THEORY. BASIC CONCEPTS THAT DEFINE URBAN AND REGIONAL PLANNING**

The science of urban and regional planning and its object of study: The planning function. (6 hours)  
Purpose of urban and regional planning. (6 hours)

### **E. PLANNING METHODOLOGY**

Manageable and moldable elements of the structure of the human establishment. Characteristics of the planning function, the planning process. (6 hours)  
The file. The analysis for the diagnosis and prognosis of the situation of the human establishment. (6 hours)  
Formulation of the master plan. Public action and administration for development, safety and disaster prevention and mitigation. (6 hours)

#### WEEK OF FINAL EXAMS (Written Support 2)

## **V. LABORATORIES AND PRACTICAL EXPERIENCES**

Structured work in five stages:

- Presentation of the topic, program and bibliography.
- Presentation of the investigation of the subject through research files.
- Presentation of the topic analysis through writing sheets.
- Presentation of the synthesis through a draft.
- Presentation of the Final Work.

## **VI. METHODOLOGY**

The course is developed in sessions of theory and practice. In the theory sessions, the teacher presents the concepts, applications and synthesis of the topics, encouraging student

participation. In the practical sessions, planning cases are discussed, stages of staggered work are explained and reviewed, and the topics discussed through reading controls are evaluated.

## VII. EVALUATION FORMULA

The learning will be evaluated through the "D" system.

- 6 Qualified practices, the one with the lower grade is eliminated: Weight 1, each
- Structured Work, first phase Research program: Weight 1
- Structured Work, second phase Final essay: Weight 1

$$FA = \frac{QP1 + QP2 + QP3 + QP4 + QP5 + SW1 + SW2}{7}$$

## VIII. BIBLIOGRAPHY

- Guamán Poma de Ayala Education and Communication Center - Urban Chronicles, Analysis and Urban - Regional Perspectives. Year IX - Number 9 -10. Cusco, Peru, 2004 - Year XI - Number 12. Cusco, Peru, 2007.
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- Gómez Orea D. (2008) Territorial Planning, Madrid: Mundi-Press Editions.
- LEFEBVRE, Henri (1975) The Right to the City. Barcelona, Editorail Peninsula
- MUMFORD, Lewis (1965) The City in History, Buenos Aires, Infinite Editions.
- MUNIZAGA, Gustavo (1999) Cities and their History, Mexico, Alfaomega Editorial
- TOYNBEE, Arnold (1981) Study of History, Madrid, Editorial Alliance.
- DE SOTO, Hernando (1986) The Other Path, Lima, Editorial El Barranco
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