



NATIONAL UNIVERSITY OF ENGINEERING

COLLEGE OF CIVIL ENGINEERING

CIVIL ENGINEERING PROGRAM

CO622 – GEOGRAPHY AND NATIONAL REALITY

I. GENERAL INFORMATION

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| CODE | : CO622 – Geography and National Reality |
| SEMESTER | : 6 |
| CREDITS | : 02 |
| HOURS PER WEEK | : 06 (Theory – Laboratory) |
| PREREQUISITES | : EP111 – General Economy |
| CONDITION | : Mandatory |

II. COURSE DESCRIPTION

The rich and complex deed of Peru and its reality at present overflows the possibility of synthesizing it in a single Course. Hence the desirability of it being developed as a Course-Workshop on research and information gathering on the topics proposed in the syllabus.

Content:

Peru and its territory, as the cradle and circumstances that have given rise to their own civilizations in its coast, mountains and jungle, all apparently at first, native and then enriched by foreigners throughout its history. Its historical-geographical development. The natural regions of Peru. Its condition of 'terrestrial archipelago' and great challenge for man. Its people, societies and emerging cultures that faced it. His admirable Andean integration under the domain of Inca culture and civilization. The term of its isolation from the rest of the world by its encounter, when the rebirth, with the western Christian civilization, in its Hispanic-Moorish expression following the discovery of America and the conquest. Its integration into the Spanish empire as a great viceroyalty and the gestation in process, of a new society and emerging mestizo culture itself, a subsidiary of the Andean and Spanish, which is no longer the Andean native or the Spanish, and that following the illustration, the beginning of the modern era and the decline of Spanish rule replaced by that of the growing British empire and others, was emancipated and has been building contemporary Peru and its state, still youthful and weak, in order to realize its still beautiful unfulfilled promise about which Basadre spoke. Its own deep-rooted identity, open today to the globalized world, of which Peruvians do not have enough awareness due to ignorance and misinformation. Your accomplishments, weaknesses and possibilities.

III. COURSE OUTCOMES

Provide the civil engineering student with the opportunity to investigate and acquire with university objectivity and rigor, basic knowledge about the reality of Peru today and its visible future, the particular characteristics of its territory, its population, its society, his idiosyncrasy, of his organization and work, of his strengths, weaknesses and opportunities, to exercise with greater competence, probity and success his profession, collaborating to the continuous and sustained improvement of the quality of life of all its inhabitants.

Provide the civil engineering student with the opportunity to train in the scientific discipline of research, in their capacity for critical analysis and synthesis, in teamwork, in their ability to communicate their work and publicly expose their thinking, reasoning and conclusions.

IV. LEARNING UNITS

1. Introduction, basic concepts, objectives and program. Reference bibliography. The rich and complex deed of Peru and its reality that at present overflows the possibility of synthesizing it in a simple Course, hence the convenience of this subject being developed as a research and commentary workshop on the topics proposed in its program.
2. The human establishment. The realization of man and his effort to improve his quality of life. The interdependence between man, by his initiative and action, and the physical environment, by the conditioning that he poses. Culture. Civilization Manageable, moldable and inevitable situations.
3. Civilizations in human history. Arnold Toynbee's thesis. Subsidiaries, dead and alive. The Andean civilization. The Tahuantinsuyo. The Hellenic Civilization The western Christian civilization.
4. The process of civilization driven by innate vocations to perfection and the social of man. Nomadic culture. The rural culture The culture of the cities and the one that is being generated from the conurbations.
5. The Andean civilization, its evolution and conjunction with the foreign by the Spanish conquest in the gestation of Peru. The original societies and cultures, the pre-Inca, the conquest and Inca expansion, its dissolution by conjunction with the foreign in the gestation of Peru. Its characteristics and contributions to Peruvian society and culture.
6. Western Christian civilization and its evolution. The fall of Rome Feudalism. The medieval city-states. The rebirth of commerce and the bourgeois revolution. The demographic revolution. The rise of national states. The cultural revolution of the renaissance, the development of science and the arts. Print. The inventions. The geographical and astronomical discoveries. The renaissance city. Illustration. The industrial revolution and the advent of the mechanized era of life. Coal and steel, hydraulic and wind energy, reinforced concrete. The steam engine, the railroads, the vapors; the modern, chaotic and polluted city of the 19th century. The explosion and electric motor. Oil, hydrocarbons and hydroelectric power. The appearance of the car, the plane, the press and the beginning of the development of telecommunications; the contemporary city and environmental pollution of the twentieth century. Magnetic and atomic energy, electronics, jet and space rockets, the advent of computer science and generalized information and communication; global warming, the contemporary city of the 21st century and its dynamics. The "megalopolis." The "ecumenópolis". The "global village."
7. The city, its evolution and function in the process of civilization. It arises in the "central places" of geography, suitable for the emergence of the market and the agora, as are the crossroads of roads and communications. Centripetal force and centrifugal force. Its linear development and conurbation. The urban and the rural. The city, the flower that emerges from the greater rural productivity and the need for exchange, and the driving pole of urban and rural development. The "development regions."
8. The territory of Peru. Its location on the planet. Its extension throughout history. Its characteristics. Its natural regions. Its potential and challenges for life. Peru, terrestrial archipelago. Its critical sensitivity to roads and communication, water management, energy provision, and disaster prevention and mitigation.
9. The population that settled in it, its evolution and historical task. Its demographic and cultural evolution throughout history. The nomadic and semi-nomadic archaic indigenous, the pre-Inca fishing and rural, that of the Inca empire, that of the conquest, that of the viceroyalty, that of enlightenment and independence, that of the republic open to the world. The anarchic republic. The plutocratic republic. The aristocratic republic. The populist republic. The republic in process towards an inclusive democracy, the full rule of law and a well-structured and entrenched global open market social economy. Heterogeneous society fundamentally

mestizo, with rich culture and own identity for its long, random and persevering historical effort before the formidable challenge of its circumstance. Identity that, however, she herself, confused, ignores due to misinformation and low educational level. Beautiful promise not yet fulfilled by the weaknesses of the improvised state in formation, which expresses and represents it.

10. Peruvians and Peru, a heterogeneous society as a result of the encounter of basically two great civilizations and cultures, the indigenous Andean and the Christian West in its Spanish-Moorish version, which began to take shape and take their own name in the Spanish conquest and the viceroyalty, to those that have joined the African slave brought when the conquest and the viceroyalty, and those of immigrant colonies when the industrial revolution in the republic, modern Europe, North America, China, Japan and others .
11. Role in the deed of Peru, the state, the church and education, the army, the peasant communities, the university, the social media, the landowners and mining, fishing entrepreneurs, commercial and industrial, guilds, immigrants and Amazonian tribes.
12. Evolution of contemporary Peru. From semi-nomadic and rural cultures, to culture of cities and conurbations. From roads to paths, horseshoe roads, trails, sea, lake and river navigation, to roads, railways and air navigation. From lack of communication to global computer telecommunications. From predominantly rural population, to predominantly urban. From local autarkic and barter economies, to monopoly and finally global market economy. From tribal, communal uses, customs and rules of coexistence to states of national and international law, from monarchy to republic. From caste society to social inclusion. Popular overflow and state crisis. Emerging middle-class Sensitivity to communication, education, ethical and civic culture, governance, security, administration of justice and national defense.
13. Characteristics of the Peruvian population at present, substantially mestizo of ethnic groups and historical cultures. Its ethnic and cultural heterogeneity. His sensitivity to roads and social communication, education and law. Your abilities and weaknesses.
14. The poles of development impulse in Peru of the present and its regions of influence at their national, macro-regional, regional, micro-regional and local levels, and their evolutionary tendencies.
15. The present Peru in the gravitational interrelation with external poles of development drive neighbors, continental, Pan American, world. From the Andean autarkic universe to the Hispanic monopoly imperial, to the British-European-North American-Japanese oligopolistic imperial and to the world open market. The Atlantic basin. The Pacific basin. National, continental and global integrative roads and communication; Megaports and airports.
16. The task to fulfill in the development of Peru and in it, that of engineering and civil engineering.

V. METHODOLOGY

Students will be organized in 10 research teams; work teams each consisting of 5 students appointed by the teacher according to the order of the list and among them will nominate their president and secretary.

The Group's role is to investigate a topic of the field of research programmed in the course-Workshop syllabus or related to it and present on the scheduled date for the consideration of the full Workshop, through the nominated spokesperson, its written report of results, prepared in two copies (one for the use of the speaker and exhibitor of the Group once qualified by the teacher and another for the archiving and academic control of the teacher).

The Report must give an account of: 1) to what duly informed objective knowledge did the Group reach on the topic under investigation and 2) what does the Group think about that fact or situation.

Once the presentation is completed, the Report is submitted by the Professor for the consideration of the plenary, moderating the debate, will rate the quality with which the spokesperson presented and rate the participation in the debate of each commentator involved. During its development and at the end of it, the teacher can make scopes and references by transmitting his knowledge about it. Students present who will not intervene due to time constraints or not decide in a timely manner to do so, will obtain an 11 for the stimulus of their presence and attention.

The function of the president of the Group is to convene a meeting and work tasks, distribute the agreed tasks that each member of the group must perform, coordinate and supervise the development of the programmed activities for the efficient and effective achievement of each and every report of each the Workshops scheduled and, on behalf of the Group, formally deliver to the professor the Results Report, as well as the Self-Qualification Sheet of the work accomplished by each and every member of the Group in the investigation, signed by all of them.

The role of the secretary is to attest to everything that has been done, record the attendance and fulfillment of the agreed tasks, compile the work and contributions produced by the members of the Group and order them for the preparation of the Group Report to be presented at the full Workshop, edit it and prepare the Group self-qualification sheet that will accompany it.

The function of the spokespersons exhibiting the Reports, is to prepare properly to present them with order, enthusiasm and clarity, motivating the interest of the audience for the work of your Group. The spokespersons will be rotating, so that all students exercise in this competition.

VI. EVALUATION FORMULA

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

- P1: Interest for the course-workshop.
- P2: work and application in research tasks.
- P3: participation and contribution in the workshop sessions.

$$FA = \frac{P1 + P2 + P3}{3}$$

VII. BIBLIOGRAPHY

- From different authors:
- Arnold Toynbee, Jorge Basadre, Luis Valcárcel, María Rostworowski, Felipe Guamán Poma de Ayala, García Calderón, Manuel González Prada, José de la Riva Agüero, José Carlos Mariátegui, Víctor Andrés Belaunde, Raúl Porras Barrenechea, Alberto Flores Galindo, Aurelio Miró Quesada Sosa, José Matos Mar, Hernando de Soto, Louis Baudin, William Prescott, Robert Marett, Hernán Aréstegui, Javier Pulgar Vidal, compiler Scarlett O'Phelan Godoy, Francois Perroux, Robert Dickinson, class notes.