

ESCUELA SUPERIOR POLITÉCNICA DEL LITORAL Faculty of Electrical and Computer Engineering COURSE SYLLABUS

Telecommunication Laboratory

1. CODE AND NUMBER OF CREDITS

CODE	FIEC05009			
NUMBER OF CREDITS : 3	Theoretical: 0	Practical: 3		
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2. COURSE DESCRIPTION

The Telecommunications Laboratory course is the last laboratory for Engineering in Telecommunications. Reinforces the concepts acquired in theoretical courses and Communications Analog, Communications Digital. The student must submit reports and lessons from the practices, and develop a final project which applies the knowledge acquired throughout their studies.

3. PRE-REQUISITES AND CO-REQUISITES

PRE-REQUISITES	FIEC04960 DIGITAL COMMUNICATION FIEC01347 ELECTRONIC B LABORATORY
CO-REQUISITES	

4. CORE TEXT AND OTHER REQUIRED REFERENCES FOR THE TEACHING OF THE COURSE

CORE TEXT	1. Manual of telecommunication laboratory
REFERENCES	 R. E. Ziemer, W. H. Tranter, Principles of Communications: Systems, Modulation, and Noise. 4th Edition, John Wiley & Sons. 1995. Leon Couch, Digital and Analog Communication Systems. 5th Edition, Prentice Hall, 1995.

5. COURSE LEARNING OUTCOMES

At the end of the course, the student will be able to:

1. Integrate the knowledge acquired in the communications area courses: Systems Linear, Analogue and Digital Communications, Data Networks, Electromagnetic Theory I and II, Antennas and Propagation.

2. Know different measuring devices used in communications.

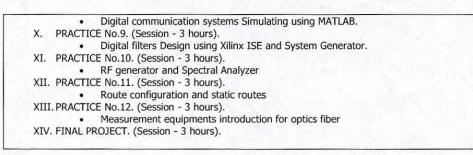
3. Understand the use of manuals and data provided by manufacturers to manage devices and to select circuit elements in the design of communications equipment.

6. COURSE PROGRAM

I.	PRACTICE No. 1. (Session - 3 hours).
	 Introduction to laboratory equipment
II.	PRACTICE No. 2. (Session - 3 hours).
	• AM
III.	PRACTICE No. 3. (Session - 3 hours).
	• FM
IV.	PRACTICE No. 4. (Session - 3 hours).
	ASK
V.	PRACTICE No.5. (Session - 3 hours).
	• FSK
VI.	PRACTICE No.6. (Session - 3 hours).
	• PSK
VII.	1ST ADVANCE OF PROJECT (Session - 3 hours).
	PRACTICE No.7 (Session - 3 hours).
	Manchester CVDS
IX.	PRACTICE No.8 (Session - 3 hours).

COURSE SYLLABUS TELECOMMUNICATION LABORATORY





7. WORKLOAD: THEORY/PRACTICE

1 session per week for three hours

8. CONTRIBUTION OF THE COURSE TO THE EDUCATION OF THE STUDENT

Fundamental to engineering area.

BASIC TRAINING	PROFESSIONAL TRAINING	SOCIAL SKILLS DEVELOPMENT
	x	

9. THE RELATIONSHIP BETWEEN THE LEARNING OUTCOMES OF THE COURSE AND THE LEARNING OUTCOMES OF THE DEGREE PROGRAM

LEARNING OUTCOMES OF THE DEGREE PROGRAM*		DEGREE PROGRAM* (High, Medium, THE Low) COURSE**		THE STUDENT MUST:	
a)	An ability to apply knowledge of mathematics, science and engineering.				
b)	An ability to design and conduct experiments, and to analyze and interpret data	High	1, 2	Development of reports during the experiments	
c)	An ability to design a system, component or process to satisfy realistic constraints.	High	1, 3	Design of a prototype according to specifications.	
d)	An ability to function on multidisciplinary teams.				
e)	An ability to identify, formulate and solve engineering problems.	Medium	1,3	Development a design and prototype solution of Communications, according to objectives.	
f)	An understanding of ethical and professional responsibility.				
g)	An ability to communicate effectively.	Low		Report and presentation of the project.	
h)	A broad education necessary to understand the impact of engineering solutions in a social, environmental, economic				



	and global context.			
i)	A recognition of the need for, and an ability to engage in life-long learning.	Low		Research and readings development of final project
j)	A knowledge of contemporary issues.			
k)	An ability to use the techniques, skills, and modern tools necessary for engineering practice.	High	1, 2, 3	Using programs for design and simulation.
1)	Capacity to lead, manage and undertake projects.			

10. EVALUATION IN THE COURSE

Evaluation activities		
Exams		1.1
Tests	X	
Homework/tasks		1.1
Projects	X	VAR
Laboratory/Experiments	X	
Class participation		
Visits		
Other	X	

11. PERSON RESPONSIBLE FOR THE CREATION OF THE SYLLABUS AND THE DATE OF ITS CREATION

Created by	Eng. María Antonieta Alvarez	
Date	03 MAY 2013	

12. APPROVAL

ACADEMIC SECRETARY OF THE ACADEMIC DEPARTMENT	DIRECTOR OF TECHNICAL ACADEMIC SECRETARY
NAME:	NAME:
Mrs. Leoper Caicedo 6	Eng.Marcos Mendoza
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Date approval by the Directive	India
Council:	Ing. Marcos Mendoza V. DIRECTOR DE LA SECRETARIA
2013-537 2013-10-7	TECNICA ACADEMICA

13. VALIDITY OF THE SYLLABUS

RESOLUTION OF THE POLYTECHNIC BOARD:	13-12-343
DATE:	2013-12-12